HOUSE OF LORDS

OPINIONS OF THE LORDS OF APPEAL FOR JUDGMENT

IN THE CAUSE

Gregg (FC) (Appellant) v. Scott (Respondent)

[2005] UKHL 2

THURSDAY 27 JANUARY 2005

The Appellate Committee comprised:

Lord Nicholls of Birkenhead

Lord Hoffmann

Lord Hope of Craighead

Lord Phillips of Worth Matravers

Baroness Hale of Richmond

LORD NICHOLLS OF BIRKENHEAD

My Lords,

1. This appeal raises a question which has divided courts and commentators throughout the common law world. The division derives essentially from different perceptions of what constitutes injustice in a common form type of medical negligence case. Some believe a remedy is essential and that a principled ground for providing an appropriate remedy can be found. Others are not persuaded. I am in the former camp.

2. This is the type of case under consideration. A patient is suffering from cancer. His prospects are uncertain. He has a 45% chance of recovery. Unfortunately his doctor negligently misdiagnoses his condition as benign. So the necessary treatment is delayed for months. As a result the patient's prospects of recovery become nil or almost nil. Has the patient a claim for damages against the doctor? No, the House was told. The patient could recover damages if his initial prospects of recovery had been more than 50%. But because they were less than 50% he can recover nothing.

3. This surely cannot be the state of the law today. It would be irrational and indefensible. The loss of a 45% prospect of recovery is just as much a real loss for a patient as the loss of a 55% prospect of recovery. In both cases the doctor was in breach of his duty to his patient. In both cases the patient was worse off. He lost something of importance and value. But, it is said, in one case the patient has a remedy, in the other he does not.

4. This would make no sort of sense. It would mean that in the 45% case the doctor's duty would be hollow. The duty would be empty of content. For the reasons which follow I reject this suggested distinction. The common law does not compel courts to proceed in such an unreal fashion. I would hold that a patient has a right to a remedy as much where his prospects of recovery were less than 50-50 as where they exceeded 50-50. Perforce the reasoning is lengthy, in parts intricate, because this is a difficult area of the law.

The present case

5. First I must mention the salient facts of this appeal. These are not quite so straightforward or extreme as in the example just given. At the risk of over-simplification they can be summarised as follows. The defendant Dr Scott negligently diagnosed as innocuous a lump under the left arm of the claimant Mr Malcolm Gregg when in fact it was cancerous (non-Hodgkin's lymphoma). This led to nine months' delay in Mr Gregg receiving treatment. During this period his condition deteriorated by the disease spreading elsewhere. The deterioration in Mr Gregg's condition reduced his prospects of disease-free survival for ten years from 42%, when he first consulted Dr Scott, to 25% at the date of the trial. The judge found that, if treated promptly, Mr Gregg's initial treatment would probably have achieved remission without an immediate need for high dose chemotherapy. Prompt treatment would, at least initially, have prevented the cancer spreading to the left pectoral region.

6. However, the judge found also that, although Mr Gregg's condition deteriorated and in consequence his prospects were reduced in this way, a better outcome was never a probability. It was not possible to conclude on the balance of probability that, in the absence of the negligence, Mr Gregg's medical condition would have been better or that he would have avoided any particular treatment. Before the negligence Mr Gregg had a less than evens chance (45%) of avoiding the deterioration in his condition which ultimately occurred. The delay did not extinguish this chance but reduced it by roughly half. The judge assessed this reduction at 20%. That was the extent to which the negligence reduced Mr Gregg's prospects of avoiding the deterioration in his condition which ultimately occurred. The facts can be found more fully stated in the judgments of the Court of Appeal [2002] EWCA Civ 1471 and in the speech of my noble and learned friend Lord Phillips of Worth Matravers.

7. On these findings the trial judge, Judge Inglis, dismissed the claim. He considered he was driven to this conclusion by the reasoning of your Lordships' House in *Hotson v East Berkshire Area Health Authority* [1987] AC 750. The Court of Appeal by a majority (Simon Brown and Mance LJJ, Latham LJ dissenting) dismissed Mr Gregg's appeal.

Past facts and future prospects

8. In order to set the question now before the House in its legal perspective I must next say something about the common law approach to proof of actionable damage, that is, damage which the law regards as founding a claim for compensation. It is trite law that in the ordinary way a claimant must prove the facts giving rise to a cause of action against the defendant. Where the claim is based on negligence the facts to be

proved include those constituting actionable damage as well as those giving rise to the existence of a duty of care and its breach.

9. In the normal way proof of the facts constituting actionable damage calls for proof of the claimant's present position and proof of what would have been the claimant's position in the absence of the defendant's wrongful act or omission. As to what constitutes proof, traditionally the common law has drawn a distinction between proof of past facts and proof of future prospects. A happening in the past either occurred or it did not. Whether an event happened in the past is a matter to be established in civil cases on the balance of probability. If an event probably happened no discount is made for the possibility it did not. Proof of future possibilities is approached differently. Whether an event will happen in the future calls for an assessment of the likelihood of that event happening, because no one knows for certain what will happen in the future.

10. This distinction between past and future is applied also when deciding what would have happened in the past or future but for a past happening such as the defendant's negligent act. What would have happened in the past but for something which happened in the past is, at least generally, a question decided by the courts on the all-or-nothing basis of the balance of probability. On this the authorities are not altogether consistent, but this seems to be the generally accepted practice. In contrast, what would have happened in the future but for something which happened in the past calls for an assessment of likelihood.

11. Thus the question whether a claimant's hand was damaged in an accident at work is a matter to be decided on the balance of probability. So also is the hypothetical question whether, if the employer had duly provided the necessary protective equipment, the claimant would have worn it: see, for instance, *McWilliams v Sir William Arrol & Co Ltd* [1962] 1 WLR 295, 306-307, 309, *Allied Maples Group Ltd v Simmons & Simmons* [1995] 1 WLR 1602, 1610G, per Stuart-Smith LJ, and *Barnett v Chelsea and Kensington Hospital Management Committee* [1969] 1 QB 428, 439. By way of contrast, whether the claimant's damaged hand will develop osteoarthritis in later life calls for an estimate of the chances of that happening. Whether, hypothetically, his hand would have been likely to develop osteoarthritis in the future even without the accident also calls for such an estimate.

12. This distinction was summarised in the well known words of Lord Diplock in *Mallett v McMonagle* [1970] AC 166, 176:

> 'The role of the court in making an assessment of damages which depends upon its view as to what will be and what would have been is to be contrasted with its ordinary function in civil actions of determining what was. In determining what did happen in the past a court decides on the balance of probabilities. Anything that is more probable than not it treats as certain. But in assessing damages which depend upon its view as to what will happen in the future or would have happened in the future if something had not happened in the past, the court must make an estimate as to what are the chances that a particular thing will or would have happened and reflect those chances, whether they are more or less than even, in the amount of damages it awards.'

Lord Reid made similar observations in *Davies v Taylor* [1974] AC 207, 212-213.

13. This sharp distinction between past events and future possibilities is open to criticism. Whether an event occurred in the past can be every bit as uncertain as whether an event is likely to occur in the future. But by and large this established distinction works well enough. It has a comfortable simplicity which accords with everyday experience of the difference between knowing what happened in the past and forecasting what may happen in the future.

14. In practice the distinction is least satisfactory when applied to hypothetical events (what would have happened had the wrong not been committed). The theory underpinning the all-or-nothing approach to proof of past facts appears to be that a past fact either happened or it did not and the law should proceed on the same footing. But the underlying certainty, that a past fact happened or it did not, is absent from hypothetical facts. By definition hypothetical events did not happen in the past, nor will they happen in the future. They are based on false assumptions. The defendant's wrong precluded them from ever materialising.

Loss of an opportunity or chance as actionable damage

15. It is perhaps not surprising therefore that it is principally in the field of hypothetical past events that difficulties have arisen in practice. Sometimes, whether a claimant has suffered actionable damage cannot fairly be decided on an all-or-nothing basis by reference to what, on balance of probability, would have happened but for the defendant's negligence. Sometimes this would be too crude an approach. What would have happened in the absence of the defendant's negligence is altogether too uncertain for the all-or-nothing approach to be satisfactory. In some cases what the claimant lost by the negligence was the opportunity or chance to achieve a desired result whose achievement was outside his control and inherently uncertain. The defendant's wrong consisted of depriving the claimant of a chance he would otherwise have had to achieve a desired outcome.

16. Then, the greater the uncertainty surrounding the desired future outcome, the less attractive it becomes to define the claimant's loss by whether or not, on balance of probability, he would have achieved the desired outcome but for the defendant's negligence. This definition of the claimant's loss becomes increasingly unattractive because, as the uncertainty of outcome increases, this way of defining the claimant's loss accords ever less closely with what in practice the claimant had and what in practice he lost by the defendant's negligence.

17. In order to achieve a just result in such cases the law defines the claimant's actionable damage more narrowly by reference to the *opportunity* the claimant lost, rather than by reference to the loss of the desired *outcome* which was never within his control. In adopting this approach the law does not depart from the principle that the claimant must prove actionable damage on the balance of probability. The law adheres to this principle but defines actionable damage in different, more appropriate terms. The law treats the claimant's loss of his opportunity or chance as itself actionable damage. The claimant must prove this loss on balance of probability. The court will then measure this loss as best it may. The chance is to be ignored if it was merely speculative, but

evaluated if it was substantial: see *Davies v Taylor* [1974] AC 207, 212, per Lord Reid.

18. Some familiar examples will suffice. A woman who was wrongly deprived of the chance of being one of the winners in a beauty competition was awarded damages for loss of a chance. The court did not attempt to decide on balance of probability the hypothetical past event of what would have happened if the claimant had been duly notified of her interview: *Chaplin v Hicks* [1911] 2 KB 786. When a solicitor's failure to issue a writ in time deprived a claimant of the opportunity to pursue court proceedings damages were not assessed on an all-or-nothing basis by reference to what probably would have been the outcome if the proceedings had been commenced in time. The court assessed what would have been the claimant's prospects of success in the proceedings which the solicitor's negligence prevented him from pursuing: *Kitchen v Royal Air Force Association* [1958] 1 WLR 563. When an employer negligently supplied an inaccurate character reference, the employee did not need to prove that, but for the negligence, he would probably have been given the new job. The employee only had to prove he lost a reasonable chance of employment, which the court would evaluate: *Spring v Guardian Assurance Plc* [1995] 2 AC 296, 327.

19. In *Allied Maples Group Ltd v Simmons & Simmons* [1995] 1 WLR 1602 a solicitor's negligence deprived the claimant of an opportunity to negotiate a better bargain. The Court of Appeal applied the 'loss of chance' approach. Stuart-Smith LJ, at page 1611, regarded the case as one of those where 'the plaintiff's loss depends on the hypothetical action of a third party, either in addition to action by the plaintiff … or independently of it.' It is clear that Stuart-Smith LJ did not intend this to be a precise or exhaustive statement of the circumstances where loss of a chance may constitute actionable damage and his observation should not be so understood.

Medical negligence

20. Against this background I turn to the primary question raised by this appeal: how should the loss suffered by a patient in Mr Gregg's position be identified? The defendant says 'loss' is confined to an *outcome* which is shown, on balance of probability, to be worse than it otherwise would have been. Mr Gregg must prove that, on balance of probability, his medical condition after the negligence was worse than it would have been in the absence of the negligence. Mr Gregg says his 'loss' includes proved diminution in the *prospects* of a favourable outcome. Dr Scott's negligence deprived him of a worthwhile chance that his medical condition would not have deteriorated as it did.

21. Of primary relevance on this important issue is an evaluation of what, *in practice*, a patient suffering from a progressive illness loses when the treatment he needs is delayed because of a negligent diagnosis. What the patient loses depends, of course, on the circumstances of the individual case. No doubt in some cases medical opinion will be that, given his pre-existing condition, the patient lost nothing by the delay in treatment because he never had any realistic prospect of recovery. The doctor's misdiagnosis made no significant difference to the patient's prospects of recovery. In other cases medical opinion may be that the patient lost everything. Barring

unforeseen complications he would have made a complete recovery had his condition been diagnosed properly and had he then received appropriate treatment.

22. These two types of case are, in the present context, straightforward. But there are also many cases of serious illness or injury where a patient's existing chances of recovery fall between these extremes. There are occasions where medical opinion will be that, given prompt and appropriate treatment, the outcome was uncertain but the patient's prospects of recovery were appreciable, sometimes exceeding 50%, sometimes not.

23. This is hardly surprising. Enormous advances have been made in medical knowledge and skills in recent years, in this country and internationally. New and improved drugs and procedures make possible ever more alleviation of illnesses and injuries. But the outcome of medical treatment in any particular case remains beyond anyone's control. It is often a matter of considerable uncertainty, in some types of case more than others. Doctors cannot guarantee outcomes. Every person and his personal circumstances and history are different. The way some drugs work is not understood fully. The response of patients to treatment is not uniform, nor is it always predictable. Faced with a serious illness or injury doctors can often do no more than assess a patient's prospects of recovery. Limitations on human knowledge mean that, to greater or lesser extent, the prognosis for a patient is inherently uncertain. Indeed, sometimes the very diagnosis itself may be problematic.

24. Given this uncertainty of outcome, the appropriate characterisation of a patient's loss in this type of case must surely be that it comprises the loss of the chance of a favourable outcome, rather than the loss of the outcome itself. Justice so requires, because this matches medical reality. This recognises what in practice a patient had before the doctor's negligence occurred. It recognises what in practice the patient lost by reason of that negligence. The doctor's negligence diminished the patient's prospects of recovery. And this analysis of a patient's loss accords with the purpose of the legal duty of which the doctor was in breach. In short, the purpose of the duty is to promote the patient's *prospects* of recovery by exercising due skill and care in diagnosing and treating the patient's condition.

25. This approach also achieves a basic objective of the law of tort. The common law imposes duties and seeks to provide appropriate remedies in the event of a breach of duty. If negligent diagnosis or treatment diminishes a patient's prospects of recovery, a law which does not recognise this as a wrong calling for redress would be seriously deficient today. In respect of the doctors' breach of duty the law would not have provided an appropriate remedy. Of course, losing a chance of saving a leg is not the same as losing a leg: see Tony Weir, 'Tort Law' (2002), p 76. But that is not a reason for declining to value the chance for whose loss the doctor was directly responsible. The law would rightly be open to reproach were it to provide a remedy if what is lost by a professional adviser's negligence is a financial opportunity or chance but refuse a remedy where what is lost by a doctor's negligence is the chance of health or even life itself. Justice requires that in the latter case as much as the former the loss of a chance should constitute actionable damage.

Loss of prospects and medical statistics

26. Before pursuing the implications of this approach further, I must mention another feature of medical negligence cases. Thus far I have treated diminution of a patient's prospects of recovery as capable of proof like any other fact. But in medical negligence cases there is a complication not always found in negligence claims brought against lawyers or other professionals. By the same token that the outcome of illness or injury in an individual patient may be inherently uncertain, so it may be difficult to prove in an individual case what the patient lost when he lost the 'chance' of a more favourable outcome.

27. Take, for instance, a professional negligence claim brought against a solicitor who negligently permitted court proceedings to become statute-barred by failing to issue a writ in time. The court deciding the negligence claim is able to assess what would have been the claimant's prospects in the time-barred proceedings by having regard to a wide range of known facts peculiar to the particular case: the nature of the issues, the evidence which would have been available, and so forth. In cases of medical negligence assessment of a patient's loss may be hampered, to greater or lesser extent, by one crucial fact being unknown and unknowable: how the particular patient would have responded to proper treatment at the right time. The patient's previous or subsequent history may assist. No doubt other indications may be available. But at times, perhaps often, statistical evidence will be the main evidential aid.

28. Statistical evidence, however, is not strictly a guide to what would have happened in one particular case. Statistics record retrospectively what happened to other patients in more or less comparable situations. They reveal trends of outcome. They are general in nature. The different way other patients responded in a similar position says nothing about how the claimant would have responded. Statistics do not show whether the claimant patient would have conformed to the trend or been an exception from it. They are an imperfect means of assessing outcomes even of groups of patients undergoing treatment, let alone a means of providing an accurate assessment of the position of one individual patient.

29. Take as an example the statistical evidence that 42% of the patients suffering from the same disease as Mr Gregg achieved ten year survival if treated at the stage when, but for the negligence, Mr Gregg would have been treated, this figure dropping to 25% when the treatment was not given until the disease had reached the more advanced stage at which Mr Gregg was actually treated. Who can know whether Mr Gregg was in the 58% non-survivor category or the 42% survivor category? There was no evidence, peculiar to him or his circumstances, enabling anyone to say whether on balance of probability he was in the former group or the latter group. The response Mr Gregg would have made if treated promptly is not known and never can be known.

30. This difficulty was the foundation of a submission based on the proposition that a 'statistical chance' has no value, so its 'loss' cannot attract an award of compensation. To award compensation for such a loss, calculated by reference to percentage 'chances', would not achieve fairness. That would have the effect of under-compensating patients whose outcome was in fact worsened by the delay in treatment, and over-compensating those whose outcome was not in fact worsened.

31. Despite its impeccable logic this argument cannot be accepted. In suitable cases courts are prepared to adapt their process so as to leap an evidentiary gap when

overall fairness plainly so requires. *Fairchild v Glenhaven Funeral Services Ltd* [2003] 1 AC 32 is a recent illustration of this in a different context. In the present context use of statistics for the purpose of evaluating a lost chance makes good sense. The practical arguments in favour of use of statistics in this way are compelling. Everyone knows that when speedy medical treatment is essential delay may have adverse effects on a patient. When cancer spreads it may be less susceptible to treatment. Medical experience of other patients has shown this to be so. This experience of the outcome for other patients, recorded in statistics, may afford the only basis on which a court can evaluate the diminution in prospects of recovery of an individual patient which may be expected to follow from delay in giving him treatment.

32. The value of the statistics will of course depend upon their quality: the methodology used in their compilation, how up to date they are, the number of patients involved in the statistics, the closeness of their position to that of the claimant, the clarity of the trend revealed by the figures, and so on. But to reject all statistical evidence out of hand would not be acceptable. This argument, if accepted, would effectually nullify the use of statistics in all cases of delayed treatment save perhaps where the figures approached 0% or 100%. Despite its imperfection, in practice statistical evidence of a diminution in perceived prospects will often be the nearest one can get to evidence of diminution of actual prospects in a particular case. When there is nothing better courts should be able to use these figures and give them such weight as is appropriate in the circumstances. This conclusion is the more compelling when it is recalled that the reason why the actual outcome for the claimant patient if treated promptly is not known is that the defendant by his negligence prevented that outcome becoming known.

33. Use of statistics in this way is not a revolutionary step. Medical statistics are widely used and have been so for many years. Courts habitually use statistics as an aid when compensating claimants for a risk of an outcome which may materialise, whether the risk is more than 50% or less than 50%. If a head injury carries with it a 20% increased risk of epilepsy in the future a court takes this into account when assessing compensation in the round.

Identifying a lost chance in medical negligence cases

34. I come next to a further twist in the story. It concerns an additional complication. It is a difficult part of this appeal. With 'loss of chance' cases such as *Chaplin v Hicks* [1911] 2 KB 786 identifying the 'chance' the claimant lost is straightforward enough. The position of the claimant in the *Chaplin* case, had there been no wrong, could not be decided satisfactorily because no one could know what would have been the outcome of the beauty contest if the claimant had appeared at the interview. It was this uncertainty which made it appropriate to treat her loss of a chance as itself actionable damage. Otherwise she would have had no remedy. The chance she lost was the opportunity to attend and be considered at the interview. Thus, in this type of case the claimant's *actual* position at the time of the negligence, proved on balance of probability if disputed, is not determinative of the crucial*hypothetical* fact: what would have been the claimant's position in the absence of the wrong?

35. The position with medical negligence claims is different. The patient's actual condition at the time of the negligence will often be determinative of the answer to the crucially important hypothetical question of what would have been the claimant's position in the absence of the negligence. *Hotson v East Berkshire Heath Authority* [1987] AC 750 is an instance of this. The relevant factual question concerning Stephen Hotson's condition immediately prior to the negligence was whether his fall from the tree had left sufficient blood vessels intact to keep his left femoral epiphysis alive. The answer to this question of actual fact ipso facto provided the answer to the vital hypothetical question: would avascular necrosis have been avoided if Stephen Hotson's leg had been treated promptly? The answer to the first question necessarily provided the answer to the second question, because the second question is no more than a mirror image of the first. Built into the formulation of the first question was the answer to the second question.

36. This is not always so. Many cases are not so straightforward. Sometimes it is not possible to frame factual questions about a patient's condition which are (a) susceptible of sure answer and also (b) determinative of the outcome for the patient. As already noted, limitations on scientific and medical knowledge do not always permit this to be done. There are too many uncertainties involved in this field.

37. The present case is a good example. Identifying the nature and extent of Mr Gregg's cancer at the time of the mistaken diagnosis (the first question), so far as this could be achieved with reasonable certainty, did not provide a simple answer to what would have been the outcome had he been treated promptly (the second question). There were several possible outcomes. Recourse to past experience in other cases, that is statistics, personalised so far as possible, was the best that could be done. These statistics expressed the various possible outcomes in percentage terms of likelihood.

38. Thus, for present purposes medical negligence cases fall into one or other of two categories depending on whether a patient's condition at the time of the negligence does or does not give rise to significant medical uncertainty on what the outcome would have been in the absence of negligence. The *Hotson* case was in one category. There was no significant uncertainty about what would have happened to Stephen Hotson's leg if treated promptly, once his condition at the time of the negligence has been determined on the usual probability basis. The present case is in the other category. Identifying Mr Gregg's condition when he first visited Dr Scott did not provide an answer to the crucial question of what would have happened if there had been no negligence. There was considerable medical uncertainty about what the outcome would have been had Mr Gregg received appropriate treatment nine months earlier.

39. In the *Hotson* case the House left open the legal position in the 'Gregg' type of case. The House held that factual issues concerning Stephen Hotson's medical condition at the time of the negligence should be answered on the conventional all-or-nothing balance of probability basis. But Lord Bridge of Harwich noted there may be cases, particularly medical negligence cases, where causation is 'so shrouded in mystery' that the court can only measure statistical chances. He added that there are 'formidable difficulties' in the way of accepting the 'superficially attractive analogy' between the principle applied in cases such as *Chaplin v Hicks* [1911] 2 KB 786 and *Kitchen v Royal Air Force Association* [1958] 1 WLR 563 and the principle of awarding

damages in medical negligence cases for the lost chance of a better medical result: *Hotson v East Berkshire Heath Authority* [1987] 1 AC 750, 782, 783; see also Lord Mackay of Clashfern at pp 789-790.

40. I respectfully agree there may be difficulty in applying the 'diminution in prospects' approach in the *Hotson* type of case, because this would involve departing from the established all-or-nothing balance of probability approach used to decide disputed questions of past actual fact (what was the patient's condition at the time of the negligence). It may not be altogether easy to carve out an exception for medical negligence cases without, in Professor Andrew Burrow's phrase in 'Remedies for Tort and Breach of Contract', 3rd edition, p 61, 'shattering the conventional approach altogether'.

41. That difficult question does not arise in the present case. That question is to be pursued, if at all, on another occasion. The question in the present, 'Gregg' type of case concerns how the law should proceed when, a patient's condition at the time of the negligence having been duly identified on the balance of probability with as much particularity as is reasonably possible, medical opinion is unable to say with a reasonable degree of certainty what the outcome would have been if the negligence had not occurred.

42. In principle, the answer to this question is clear and compelling. In such cases, as in the economic 'loss of chance' cases, the law should recognise the manifestly unsatisfactory consequences which would follow from adopting an all-or-nothing balance of probability approach as the answer to this question. The law should recognise that Mr Gregg's prospects of recovery had he been treated promptly, expressed in percentage terms of likelihood, represent the reality of his position so far as medical knowledge is concerned. The law should be exceedingly slow to disregard medical reality in the context of a legal duty whose very aim is to protect medical reality. In these cases a doctor's duty to act in the best interests of his patient involves maximising the patient's recovery prospects, and doing so whether the patient's prospects are good or not so good. In the event of a breach of this duty the law must fashion a matching and meaningful remedy. A patient should have an appropriate remedy when he loses the very thing it was the doctor's duty to protect. To this end the law should recognise the existence and loss of poor and indifferent prospects as well as those more favourable.

43. Application of the all-or-nothing balance of probability approach in the 'Gregg' type of cases would not achieve this object. In such cases the law should therefore put aside this approach when considering what would have happened had there been no negligence. It cannot be right to adopt a procedure having the effect that, in law, a patient's prospects of recovery are treated as non-existent whenever they exist but fall short of 50%. If the law were to proceed in this way it would deserve to be likened to the proverbial ass. Where a patient's condition is attended with such uncertainty that medical opinion assesses the patient's recovery prospects in percentage terms, the law should do likewise. The law should not, by adopting the all-or-nothing balance of probability approach, assume certainty where none in truth exists: see Deane J in *Commonwealth of Australia v Amann Aviation Pty Ltd* (1991) 66 ALJR 123, 147. The difference between good and poor prospects is a matter going to the amount of

compensation fairly payable, not to liability to make payment at all. As Dore J said in *Herskovits v Group Health Cooperative of Puget Sound* (1983) 664 P 2d 474, 477:

> 'To decide otherwise would be a blanket release from liability for doctors and hospitals any time there was less than a 50 per cent chance of survival, regardless of how flagrant the negligence.'

44. The way ahead must surely be to recognise that where a patient is suffering from illness or injury and his prospects of recovery are attended with a significant degree of medical uncertainty, and he suffers a significant diminution of his prospects of recovery by reason of medical negligence whether of diagnosis or treatment, that diminution constitutes actionable damage. This is so whether the patient's prospects immediately before the negligence exceeded or fell short of 50%. 'Medical uncertainty' is uncertainty inherent in the patient's condition, uncertainty which medical opinion cannot resolve. This is to be contrasted with uncertainties arising solely from differences of view expressed by witnesses. Evidential uncertainties of this character should be resolved in the usual way.

45. This approach would represent a development of the law. So be it. If the common law is to retain its legitimacy it must remain capable of development. It must recognise the great advances made in medical knowledge and skills. It must recognise also the medical uncertainties which still exist. The law must strive to achieve a result which is fair to both parties in present-day conditions. The common law's ability to develop in this way is its proudest boast. But the present state of the law on this aspect of medical negligence, far from meeting present-day requirements of fairness, generates continuing instinctive judicial unease, exemplified in this country post-*Hotson* by Latham LJ's dissenting judgment in the present case, and observations of Andrew Smith J in *Smith v National Health Service Litigation* [2001] Lloyd's Med Rep 90 and the Court of Appeal in *Coudert Brothers* v *Normans Bay Ltd* (27 February 2004, unreported). In the latter case Waller LJ and Carnwath LJ expressed 'disquiet' at the Court of Appeal decision in the present case. Laws LJ said he was 'driven to an unhappy sense that the common law has lost its way': paragraphs 32, 66-68 and 69.

46. The reason for this disquiet is not far to seek. The present state of the law is crude to an extent bordering on arbitrariness. It means that a patient with a 60% chance of recovery reduced to a 40% prospect by medical negligence can obtain compensation. But he can obtain nothing if his prospects were reduced from 40% to nil. This is rough justice indeed. By way of contrast, the approach set out above meets the perceived need for an appropriate remedy in both these situations and does no more than reflect fairly and rationally the loss suffered by a patient in these situations.

Contrary arguments

47. In the Court of Appeal Mance LJ, 'not without hesitation', concluded that the considerations in favour of an approach based on probabilities outweigh the contrary argument. To adopt the 'loss of chance' approach in the present, very common category of medical negligence would open a considerable gate to claims based on percentages and create a new category of case difficult to distinguish in practice from the other common cases of medical negligence. Simon Brown LJ agreed with the reasoning and conclusion of Mance LJ.

48. I am unable to agree. 'Floodgates' is not a convincing reason for letting injustice stand unremedied. This reason is invariably advanced whenever a development of the law is under consideration.

49. As to the fear of uncertainty, this arises because the difference between the *Hotson* type of case and the 'Gregg' type of case is one of degree. The 'diminution in prospects' approach is to be applied only when the patient's prospects of recovery, had there been no negligence, are fraught with a significant degree of medical uncertainty. This, it is said, is an imprecise boundary.

50. This objection lacks practical substance. Differences, like opposite ends of a spectrum, can be real even though one shades imperceptibly into the other. Courts are well able to determine whether a particular case falls into one category or the other. Moreover, any uncertainty caused by the need to draw this distinction is a small price to pay for avoiding the injustice produced by applying the all-or-nothing balance of probability approach across the board in all cases of medical negligence.

51. Nor does the 'diminution in prospects' approach open the door to claims based simply on negligent exposure to noxious substances which carry a risk of the development of disease in years to come. That was the problem examined in *Fairchild v Glenhaven Funeral Services Ltd* [2003] 1 AC 32. The 'diminution in prospects' approach set out above is confined to medical negligence cases where the claimant was already suffering from illness or injury at the time of the negligence and the defendant's duty related to the amelioration of that very illness or injury. Application of the 'diminution in prospects' approach in this type of case does not impinge upon the*Fairchild* decision.

52. The respondent put forward increased cost to the national health service as a practical reason why, as a matter of legal policy, the 'diminution in prospects' approach should not be adopted. Cost, it was said, will increase. More cases will be brought, and these will give rise to dispute where currently there is forensic consensus, for instance, where experts agree a claimant's chances of recovery were less than 50-50 but cannot agree on the extent to which this was so. The whole question should be left for consideration by Parliament.

53. This is a formidable submission but it is not acceptable. Whether fears of a substantially increased financial burden on the national health service are well-founded is a matter for speculation. But these fears should not be exaggerated. A damages award reflecting diminution in a patient's prospects should be made only where, in a particular case, the patient had a reasonable prospect of recovery and the diminution was a significant one; for example, if a reasonable prospect such as a 1 in 3 or a 1 in 4 chance was eliminated or, as in the present case, a 45% chance was halved. The amounts awarded should reflect the uncertainties involved, and courts should beware of giving percentage chances a spurious degree of precision.

54. More fundamentally, if a claim is well-founded in law as a matter of principle, as I believe claims of this nature are, the duty of the courts is to recognise and give effect to the claim. If the government considers that some or all of the adverse consequences of medical negligence should be borne by patients themselves, no doubt it will consider introducing appropriate legislation in Parliament.

55. Nor can I accept a further submission to the effect that the approach set out above will encourage wasteful defensive practices. Doctors, it was said, will become aware they may be sued whenever their negligence significantly diminishes a patient's prospects, whereas at present liability can arise only if the patient's pre-existing recovery prospects exceeded 50%. Accordingly, so the argument runs, doctors will be encouraged to conduct tests or make referrals in circumstances where at present they would not do so.

56. This argument is not impressive. Every doctor is fully aware he may be sued if he is negligent. There is no reason to believe that adopting the approach set out above will affect the practices followed by doctors.

57. An alternative submission advanced on behalf of Mr Gregg should be noted briefly. In the present case the trial judge found that, treated promptly, the initial spread of the cancer and the enlargement of the tumour would probably not have occurred. This, it was said, was physical injury established on balance of probability. This constituted actionable damage. The consequences flowing from this damage should be assessed in terms of diminution of prospects: what were the chances that without this spread of the cancer the subsequent adverse results would not have occurred?

58. This submission is superficially attractive. It would enable compensation to be awarded in the present case while retaining the need to prove physical damage on the balance of probability. But this solution would not get to the heart of the problem. It does not provide an answer to the fundamental issue raised at the outset of this speech.

59. I would therefore allow this appeal.

60. Had a majority of your Lordships shared this view the case would have been remitted to the Queen's Bench Division for damages to be assessed. In that event some general guidance would have been required on the assessment of damages in this type of case. That guidance will not now be needed. I add only this. The detailed facts and statistical evidence in the present case are complex. This complexity is irrelevant on the point of fundamental principle discussed above. The difficulties arising from this complexity are not created or increased by the need to make a percentage calculation when assessing damages on the loss of chance basis. The same difficulties would have existed if the judge had found that, given prompt treatment, on balance of probability Mr Gregg's condition would not have deteriorated as it did.

LORD HOFFMANN

My Lords,

The facts

61. This is an action against a doctor for negligence in failing to recognise that his patient might have cancer. When Mr Gregg showed Dr Scott a lump under his arm, the doctor told him it was a collection of fatty tissues. That was the most likely explanation but unfortunately it was wrong. Mr Gregg had cancer of a lymph gland. This was discovered a year later, when another GP referred him to a hospital for

examination. By that time, the tumour had spread into his chest. He suffered a good deal of pain and had to undergo a particularly debilitating course of high-dose chemotherapy. The treatment temporarily destroyed the tumour but was followed by a relapse which left Mr Gregg with a poor prospect of survival.

The claim

62. Mr Gregg alleged in his particulars of claim that Dr Scott ought to have referred him to a hospital for examination. His "particulars of pain and injury" alleged that if he had been diagnosed earlier "there would have been a very high likelihood of cure". I shall come back in a moment to what, in this context, was meant by a cure. In the event, he said, the prospects of obtaining a cure had been reduced to below 50%.

The judge's findings

63. The judge found that Dr Scott had been negligent in excluding the possibility that the growth might not be benign. A routine reference to a hospital would have settled the matter. There has been no challenge to this finding.

64. The question which has given rise to this appeal is whether Dr Scott's negligence caused injury to Mr Gregg. As I have said, the injury of which he complained was that the delay had reduced his prospect of a cure to less than 50%. The expert witnesses treated a cure as meaning survival for more than 10 years. They produced statistical evidence about the progress of the disease in other patients. The judge summarised the effect of this evidence by finding that if Mr Gregg had been treated earlier, the cancer would probably not have spread as quickly as it did. The treatment would probably have produced a remission. But a remission might have been followed by a relapse and the probability was that someone with Mr Gregg's condition would either not have responded to treatment or, if he did respond, would afterwards have relapsed. In statistical terms, the evidence showed that, out of 100 patients suffering from a similar condition, only 42 would, even if treated immediately, survive more than ten years. The rest would have died earlier, either because they were part of the minority which did not respond to treatment or because, having responded, they then relapsed. What the delay had done, according to the experts, was to reduce the chances of survival for more than 10 years even further, from 42% to 25%.

65. On this evidence the judge held that the delay had not deprived Mr Gregg of the prospect of a cure because he would probably not have been cured anyway. He therefore dismissed the action.

The Court of Appeal

66. In the Court of Appeal Mr Gregg's counsel advanced two arguments. The first was that Mr Gregg had proved that the delay had caused him injury because the judge found that if he had been treated earlier, the cancer would probably not have spread as quickly as it did. He was entitled to compensation for this injury and that should include the reduction in his chances of survival. The second argument was that quite apart from any other injury, the reduction in his chances of survival was itself a compensatable head of damage. The first argument was accepted by Latham LJ but the majority of the Court (Simon Brown and Mance LJJ) rejected both and dismissed

the appeal. These two arguments were again deployed in the argument before your Lordships' House.

The quantification argument

67. The first argument is based upon the well-established principle that in quantifying the loss likely to have been caused by the defendant's wrongful act, the court will take into account possibilities, even though they do not amount to probabilities: *Mallett v McMonagle* [1970] AC 166, 176. A common example is the possibility that a claimant who has been injured by the defendant will suffer some complication such as arthritis in a damaged joint. This principle applies when the extent of the loss depends upon what will happen after the trial or upon what might hypothetically have happened (either before or after the trial) if the claimant had not been injured: see *Doyle v Wallace* [1998] PIQR Q146, in which the loss of earnings caused by the injury would have been greater if the claimant had qualified as a drama teacher.

68. This principle has in my opinion no application to the present case because it applies only to damage which it is proved will be attributable to the defendant's wrongful act. Thus in *Doyle v Wallace* there was no dispute that if the claimant had qualified as a drama teacher, the loss of the additional earnings would have been attributable to the injury which the defendant had caused her. Likewise, if the injured joint develops arthritis, there is usually no dispute that the arthritis will be attributable to the injury. In the present case, the question was not whether Mr Gregg was likely to survive more than 10 years (the finding was that he was not) but whether his likely premature death would be attributable to the wrongful act of the defendant.

69. The distinction between the question of whether damage is attributable to the defendant and the quantification of damage proved to be so attributable was succinctly made by a Canadian judge (Master J in *Kranz v M'Cutcheon*(1920) 18 Ontario WN 395) quoted by Lord Guthrie in *Kenyon v Bell* 1953 SC 125, 128:

> "The rule against recovery of uncertain damages is directed against uncertainty as to cause rather than as to extent or measure."

70. Latham LJ, who accepted the quantification argument, put the matter in this way (paragraph 41):

> "In the present case, the evidence clearly established that the cancer had spread, on the findings of the judge, by reason of the negligence of the respondent. That was all that was necessary to found his claim in negligence. Once that had been established, the question for the court was the extent to which the consequences, which included the reduced prospects of successful treatment, could themselves be established as an issue of quantification of damage."

71. I respectfully think that this formulation begs more than one question. It is true that the delay caused an early spread of the cancer and that this reduced his percentage chance of survival for more than 10 years. But to say that the claimant can therefore obtain damages for the reduction in his chances of survival assumes in his favour that a reduction in the *chance* of survival is a recoverable head of damage; an issue raised

by the claimant's second argument which Latham LJ said (at paragraph 41) that he did not need to decide. On the other hand, if the claim is for actually depriving him of survival for more than 10 years, the question is whether the spread of the cancer caused it. The judge's finding was that it did not. It was likely that his life would have been shortened to less than 10 years anyway.

Loss of a chance

72. The alternative submission was that reduction in the prospect of a favourable outcome ("loss of a chance") should be a recoverable head of damage. There are certainly cases in which it is. *Chaplin v Hicks* [1911] 2 KB 786 is a well known example. The question is whether the principle of that case can apply to a case of clinical negligence such as this.

73. The answer can be derived from three cases in the House of Lords: *Hotson v East Berkshire Area Health Authority* [1987] AC 750, *Wilsher v Essex Area Health Authority* [1988] AC 1074 and *Fairchild v Glenhaven Funeral Services Ltd* [2003] 1 AC 32.

74. In *Hotson* the claimant was a boy who broke his hip when he fell out of a tree. The hospital negligently failed to diagnose the fracture for five days. The hip joint was irreparably damaged by the loss of blood supply to its cartilage. The judge found that the rupture of the blood vessels caused by the fall had probably made the damage inevitable but there was a 25% chance that enough had remained intact to save the joint if the fracture had been diagnosed at the time. He and the Court of Appeal awarded the claimant damages for loss of the 25% chance of a favourable outcome.

75. The House of Lords unanimously reversed this decision. They said that the claimant had not lost a chance because, on the finding of fact, nothing could have been done to save the joint. The outcome had been determined by what happened when he fell out of the tree. Either he had enough surviving blood vessels or he did not. That question had to be decided on a balance of probability and had been decided adversely to the claimant.

76. In *Wilsher* a junior doctor in a special care baby unit negligently put a catheter in the wrong place so that a monitor failed to register that a premature baby was receiving too much oxygen. The baby suffered rentrolental fibroplasia ("RLF"), a condition of the eyes which resulted in blindness. The excessive oxygen was a possible cause of the condition and had increased the chances that it would develop but there were other possible causes: statistics showed a correlation between RLF and various conditions present in the Wilsher baby. But the causal mechanism linking them to RLF was unknown.

77. The Court of Appeal awarded damages for the reduction in the chance of a favourable outcome. Again this was reversed by the House of Lords. The baby's RLF was caused by lack of oxygen or by something else or a combination of causes. The defendant was liable only if the lack of oxygen caused or substantially contributed to the injury. That had to be proved on a balance of probability.

78. In *Fairchild*, the claimant had contracted mesothelioma by exposure to asbestos. The medical evidence was that the condition was probably the result of a cell mutation caused by a single fibre. The claimant had worked with asbestos for more than one employer and could not prove whose fibre had caused his disease. The Court of Appeal said that the cause of the disease was not indeterminate. It had either been caused by the defendant's fibre or it had not. It was for the claimant to prove causation on a balance of probability. The House of Lords accepted that the disease had a determinate cause in one fibre or other but constructed a special rule imposing liability for conduct which only increased the chances of the employee contracting the disease. That rule was restrictively defined in terms which make it inapplicable in this case.

79. What these cases show is that, as Helen Reece points out in an illuminating article ("Losses of Chances in the Law" (1996) 59 MLR 188) the law regards the world as in principle bound by laws of causality. Everything has a determinate cause, even if we do not know what it is. The blood-starved hip joint in *Hotson,* the blindness in*Wilsher*, the mesothelioma in *Fairchild*; each had its cause and it was for the plaintiff to prove that it was an act or omission for which the defendant was responsible. The narrow terms of the exception made to this principle in*Fairchild* only serves to emphasise the strength of the rule. The fact that proof is rendered difficult or impossible because no examination was made at the time, as in *Hotson*, or because medical science cannot provide the answer, as in *Wilsher*, makes no difference. There is no inherent uncertainty about what caused something to happen in the past or about whether something which happened in the past will cause something to happen in the future. Everything is determined by causality. What we lack is knowledge and the law deals with lack of knowledge by the concept of the burden of proof.

80. Similarly in the present case, the progress of Mr Gregg's disease had a determinate cause. It may have been inherent in his genetic make-up at the time when he saw Mr Scott, as *Hotson's* fate was determined by what happened to his thigh when he fell out of the tree. Or it may, as Mance LJ suggests, have been affected by subsequent events and behaviour for which Dr Scott was not responsible. Medical science does not enable us to say. But the outcome was not random; it was governed by laws of causality and, in the absence of a special rule as in *Fairchild* , inability to establish that delay in diagnosis caused the reduction in expectation in life cannot be remedied by treating the outcome as having been somehow indeterminate.

81. This was the view of the Supreme Court of Canada in *Laferrière v Lawson* (1991) 78 DLR (4th) 609, a case very like the present. A doctor negligently failed in 1971 to tell a patient that a biopsy had revealed a lump in her breast to be cancerous. She first learned of the cancer in 1975, when the cancer had spread to other parts of the body and died in 1978 at the age of 56. The judge found that earlier treatment would have increased the chances of a favourable outcome but was not satisfied on a balance of probability that it would have prolonged her life. Gonthier J said that although the progress of the cancer was not fully understood, the outcome was determined. It was either something capable of successful treatment or it was not.

> "Even though our understanding of medical matters is often limited, I am not prepared to conclude that particular medical conditions should be treated for

purposes of causation as the equivalent of diffuse elements of pure chance, analogous to the non-specific factors of fate or fortune which influence the outcome of a lottery." (p 656)

82. One striking exception to the assumption that everything is determined by impersonal laws of causality is the actions of human beings. The law treats human beings as having free will and the ability to choose between different courses of action, however strong may be the reasons for them to choose one course rather than another. This may provide part of the explanation for why in some cases damages are awarded for the loss of a chance of gaining an advantage or avoiding a disadvantage which depends upon the independent action of another person: see *AlliedMaples Group Ltd v Simmons & Simmons* [1995] 1 WLR 1602 and the cases there cited.

83. But the true basis of these cases is a good deal more complex. The fact that one cannot prove as a matter of necessary causation that someone would have done something is no reason why one should not prove that he was more likely than not to have done it. So, for example, the law distinguishes between cases in which the outcome depends upon what the claimant himself (*McWilliams v Sir William Arrol &* Co [1962] 1 WLR 295) or someone for whom the defendant is responsible (*Bolitho v City and Hackney Health Authority* [1998] AC 232) would have done, and cases in which it depends upon what some third party would have done. In the first class of cases the claimant must prove on a balance of probability that he or the defendant would have acted so as to produce a favourable outcome. In the latter class, he may recover for loss of the chance that the third party would have so acted. This apparently arbitrary distinction obviously rests on grounds of policy. In addition, most of the cases in which there has been recovery for loss of a chance have involved financial loss, where the chance can itself plausibly be characterised as an item of property, like a lottery ticket. It is however unnecessary to discuss these decisions because they obviously do not cover the present case.

84. Academic writers have suggested that in cases of clinical negligence, the need to prove causation is too restrictive of liability. This argument has appealed to judges in some jurisdictions; in some, but not all, of the States of the United States and most recently in New South Wales and Ireland: *Rufo v Hosking* (1 November 2004) [2004] NSWCA 391); *Philp v Ryan* (17 December 2004) [2004] 1 IESC 105. In the present case it is urged that Mr Gregg has suffered a wrong and ought to have a remedy. Living for more than 10 years is something of great value to him and he should be compensated for the possibility that the delay in diagnosis may have reduced his chances of doing so. In effect, the appellant submits that the exceptional rule in *Fairchild* should be generalised and damages awarded in all cases in which the defendant may have caused an injury and has increased the likelihood of the injury being suffered. In the present case, it is alleged that Dr Scott may have caused a reduction in Mr Gregg's expectation of life and that he increased the likelihood that his life would be shortened by the disease.

85. It should first be noted that adopting such a rule would involve abandoning a good deal of authority. The rule which the House is asked to adopt is the very rule which it rejected in *Wilsher's* case [1988] AC 1074. Yet *Wilsher's*case was expressly approved by the House in *Fairchild* [2003] 1 AC 32. *Hotson* [1987] AC 750 too would have to be overruled. Furthermore, the House would be dismantling all the qualifications and

restrictions with which it so recently hedged the *Fairchild* exception. There seem to me to be no new arguments or change of circumstances which could justify such a radical departure from precedent.

Control mechanisms

86. The appellant suggests that the expansion of liability could be held in reasonable bounds by confining it to cases in which the claimant had suffered an injury. In this case, the spread of the cancer before the eventual diagnosis was something which would not have happened if it had been promptly diagnosed and amounted to an injury caused by the defendant. It is true that this is not the injury for which the claimant is suing. His claim is for loss of the prospect of survival for more than 10 years. And the judge's finding was that he had not established that the spread of the cancer was causally connected with the reduction in his expectation of life. But the appellant submits that his injury can be used as what Professor Jane Stapleton called a "hook" on which to hang a claim for damage which it did not actually cause: see (2003) 119 LQR 388, 423.

87. An artificial limitation of this kind seems to me to be lacking in principle. It resembles the "control mechanisms" which disfigure the law of liability for psychiatric injury. And once one treats an "injury" as a condition for imposing liability for some other kind of damage, one is involved in definitional problems about what counts as an injury. Presumably the internal bleeding suffered by the boy Hotson was an injury which would have qualified him to sue for the loss of a chance of saving his hip joint. What about baby Wilsher? The doctor's negligence resulted in his having excessively oxygenated blood, which is potentially toxic: see [1987] QB 730, 764-766. Was this an injury? The boundaries of the concept would be a fertile source of litigation.

88. Similar comments may be made about another proposed control mechanism, which is to confine the principle to cases in which inability to prove causation is a result of lack of medical knowledge of the causal mechanism (as in*Wilsher*) rather than lack of knowledge of the facts (as in *Hotson's* case). Again, the distinction is not based upon principle or even expediency. Proof of causation was just as difficult for Hotson as it was for Wilsher. It could be said that the need to prove causation was more unfair on Hotson, since the reason why he could not prove whether he had enough blood vessels after the fall was because the hospital had negligently failed to examine him.

89. In *Fairchild's* case [2003] 1 AC 32, 68, Lord Nicholls of Birkenhead said of new departures in the law:

> "To be acceptable the law must be coherent. It must be principled. The basis on which one case, or one type of case, is distinguished from another should be transparent and capable of identification. When a decision departs from principles normally applied, the basis for doing so must be rational and justifiable if the decision is to avoid the reproach that hard cases make bad law."

90. I respectfully agree. And in my opinion, the various control mechanisms proposed to confine liability for loss of a chance within artificial limits do not pass this test. But a wholesale adoption of possible rather than probable causation as the criterion of

liability would be so radical a change in our law as to amount to a legislative act. It would have enormous consequences for insurance companies and the National Health Service. In company with my noble and learned friends Lord Phillips of Worth Matravers and Baroness Hale of Richmond, I think that any such change should be left to Parliament.

91. For these reasons, which are substantially the same as those of Mance LJ, with whose thoughtful judgment I would respectfully concur, I would dismiss the appeal.

LORD HOPE OF CRAIGHEAD

My Lords,

92. This is an anxious and difficult case. It is only after many months of deliberation that it has become clear that the majority view is that the appeal must be dismissed. I have reached a different opinion. In agreement with my noble and learned friend Lord Nicholls of Birkenhead, I would allow the appeal and remit the case for further consideration and the assessment of damages. I have to confess that I would not have written at such length if at the time of writing the result of the appeal had been clear to me. As it is, my views as to how the appeal ought to have been decided are, at best, of academic interest only. But I have decided to keep what I have written as this may help to explain why, for reasons which are very close to those which Lord Nicholls has given, I am unable to agree with the view which has been taken of this case by the majority.

Background

93. The appellant seeks a remedy in damages for loss, injury and damage which he sustained as a result of the respondent doctor's professional negligence. The trial judge found that the doctor was negligent. His negligence lay in a failure in his duty of diagnosis. The judge held that the doctor should have realised when he saw the appellant in November 1994 that there was a real possibility that the lump under the appellant's left arm was not benign. He should not have told the appellant that it was a lipoma and that no further investigation was called for. He should have referred him at once to a hospital or arranged to see him again very soon to see if the lump had resolved itself. The judge was of the opinion that either way the appellant would have been referred to a hospital with a view to biopsy in November 1994 or within a few weeks thereafter (para 27). If that had been done, it would have been found that a cancerous lyphoma was developing in his left axilla (para 3) and he would have embarked on treatment for his cancer in about April 1995 (para 28). But that did not happen. It was not until the appellant was admitted to hospital as an emergency with acute chest pain in January 1996 that the diagnosis was made and he commenced treatment. As a result of the doctor's negligence treatment was delayed for about nine months longer than it should have been. This reduced the appellant's prospects of a successful recovery.

94. The appellant's cancer did not wholly respond to the standard course of CHOP chemotherapy to which he was initially subjected. It was followed by a course of field radiography. When that treatment too was thought to be only partially effective the decision was taken to administer high dose chemotherapy. He was discharged in

September 1996, but in early 1998 he suffered a relapse. The fact that he had relapsed gave rise to a very poor diagnosis. The appellant was told that he could not be cured but that the doctors would keep him well as long as they could. He was given a further course of radiotherapy, but this was intended merely as a palliative. In the spring of 1998, after what was thought to be another relapse, he underwent a further course of palliative chemotherapy. When the appellant gave evidence at the trial, more than three years later, there had been no further relapse but he had no long term expectation of survival. He told the judge that he remained short of energy, was unable to carry out normal activities and was preoccupied with his illness and his possible death.

The issue of damages

95. The question which remains is whether the appellant is entitled to damages. At first sight there can only be one answer to this question. A claimant who seeks damages for negligence in a case of personal injury must show on a balance of probabilities that the breach of duty caused or materially contributed to his injury. The judge held that the appellant's condition deteriorated significantly during the period from April 1995 to January 1996. The medical experts were agreed that the lymphoma which had been developing in his left axilla spread into the pectoral muscle of the left side of his chest during this period, and that this is what precipitated the crisis in January 1996 (para 30). As both Latham and Mance LJJ said in the Court of Appeal, the delay in diagnosis caused the tumour to enlarge, invade neighbouring tissues and cause severe pain (paras 21 and 47). As Mance LJ put it, the enlarged tumour was a clear physical consequence of the doctor's negligence (para 86). On the judge's findings a conventional view of the case would be that the delay in diagnosis resulted in a physical injury which entitled the appellant to an award of damages for the consequences of that injury.

96. Latham LJ developed this point more fully in para 21 of his dissenting judgment:

> "It was the enlargement of the tumour which reduced the chances of successfully treating it. This aspect of the plaintiff's claim was never addressed by the judge. Nonetheless the judge's findings amply support the submission that the appellant had indeed suffered injury which entitled the appellant to general damages for the pain and suffering which were the physical consequence of the spread of the tumour, an assessment of the extent to which delay resulted in more intensive therefore damaging treatment, an assessment of the increased risk of relapse and the adverse effect on prognosis, involving an assessment of the consequences to the appellant's expectation of life."

The question whether the assessments referred to in the latter part of this quotation may result in an award of additional damages, and if so how those damages are to be quantified, is controversial. But there seems to be no reason to doubt the soundness of the propositions that it was proved on a balance of probabilities that the tumour spread because of the delay in treatment, that this was a physical injury which was caused by the doctor's negligence and that this gave him a cause of action for the pain and suffering that was caused by that injury and all its other adverse consequences.

97. The judge said in para 48 of his judgment that, although he had found that there was a breach of duty, he had not found the causation of loss proved. So he dismissed the claim. Your Lordships were told that the reason why the question of general damages for pain and suffering was not addressed by the trial judge is that the appellant did not ask for damages to be awarded under this head. The claim, as presented to judge, was for damages to compensate him for the loss of, or diminution in, his expectation of life due to the doctor's negligence. The appellant's cause of action, as Mr Maskrey QC put it, was for the reduced prospect of a complete recovery - for the loss of a chance, in other words. What he sought to show was that this reduced prospect was a consequence of the physical injury caused by the delay, and that it was itself something of value for which the appellant was entitled to be compensated. All the appellant's eggs were, so to speak, put in this one basket.

98. This approach to the appellant's claim has identified a possible weakness in the current state of the law, which does not favour awarding damages for the pure loss of a chance in personal injury cases. This is the issue of general public importance which Lord Nicholls has subjected to close analysis. But I cannot help thinking that isolating the claim for the reduced prospect of a recovery from the other consequences of the physical injury that was caused by the delay in the diagnosis has made the appellant's case appear unnecessarily complicated.

99. The basic rules that govern a claim of damages for personal injury are well settled. The questions which every pleader must ask himself at the outset are these: (a) whether the defendant owed a duty of care to the claimant, to prevent him sustaining the type of harm that was a foreseeable consequence of his careless acts or omissions; (b) whether there was an act or omission by the defendant which was in breach of that duty of care; and (c) for what loss, injury and damage, if any, the defendant is liable. These questions are usually approached in their historical order, as the order in which I have stated them indicates. Before the action can begin however the claimant must have suffered an injury resulting in damage which is actionable. Damage is the gist of the action of negligence, as Lord Scarman put in *Sidaway v Board of Governors of the Bethlem Royal Hospital and the Maudsley Hospital* [1985] AC 871, 883H; see also Professor Jane Stapleton, "Cause-in-Fact and the Scope of Liability for Consequences" (2003) 119 LQR 388, 389. No action lies for a wrong which has not resulted in some element of loss, injury or damage of a kind that was reasonably foreseeable for which the claimant can sue. The defendant is not liable for losses which were not wrongfully caused by him. So the claimant must prove that the defendant caused the loss for which he seeks compensation.

The breach of duty

100. There is no doubt that the doctor owed a duty of care in this case. It was his duty to exercise reasonable care in the circumstances. But damages can only be awarded if the injury which the claimant has sustained was within the scope of the duty to take care. And the issue of causation cannot be properly addressed without a clear understanding of the scope of that duty. So it is appropriate, before addressing the difficult issue of causation that has been raised in this case, to consider the scope of the duty that was found to have been breached.

101. The doctor's duty can be expressed in this way. It was his duty to act in the best interests of his patient's health and well-being and not to expose him to the risk of unnecessary pain and suffering. It was his duty to examine the lump which the appellant presented to him and to question him carefully about its history. It was his duty to consider the possible causes or explanations for it in the light of his examination and the history. The judge found that the lump did not present classically as a lipoma (para 27). In view of its location and the lack of an obvious cause for it, a doctor of ordinary skill taking reasonable care for his patient would have appreciated that there was a significant risk that the lump was lymphatic in origin. In these circumstances the doctor should have referred the appellant to hospital without delay for the carrying out of a biopsy, or alternatively should have arranged to see the appellant again for a further assessment of the lump's condition within the next few weeks. As Mr Maskrey put it, it was his duty to take reasonable care to maximise the prospects of a favourable outcome. None of this is now in dispute.

102. The scope of the doctor's duty may be defined therefore by his duty to diagnose the nature of the condition from which the appellant was suffering. The fact that the tumour was malignant would have been identified sooner and treatment for it commenced earlier if the doctor had not been negligent. His negligence deprived the appellant of the benefits that would have flowed from the diagnosis which he should have made if he had taken proper care. Mr Maskrey said that his duty was to prevent that happening which did happen - a reduction in the appellant's prospects of a successful recovery. That was the essence of the case against the doctor.

Damages - the findings

103. What then about the claim for damages? What is the extent of the doctor's liability? The starting point is to consider the respects in which the appellant's health and well-being were different from what they would have been had the doctor not been negligent. The appellant was already ill when the doctor saw him. As the judge put it, the question is what difference embarking on treatment nine months earlier would have made to the course of his illness (para 28). The judge found it proved that the delay which resulted from his negligence caused the delay in the diagnosis of the tumour and the treatment which resulted from it. He also found it proved that the tumour spread during the period of delay. This consequence of the delay undoubtedly caused the appellant pain and suffering during the period of the delay which he would not have experienced otherwise. The judge did not, for the reasons already given, award the appellant damages for this pain and suffering. But it was not the only consequence of the spread of the tumour which was caused by the doctor's failure to diagnose.

104. The judge found that the treatment which the appellant received after the tumour was diagnosed, which included high dose chemotherapy with stem cell harvesting when the initial treatment was thought to have been only partially effective, made him feel very ill, that he was short of energy and unable to carry out normal activities and that he was preoccupied with his illness and possible death (para 8). He also found that the enlargement of the tumour due to the delay reduced the chances of treating the cancer successfully. He held that the appellant's condition had "upstaged" significantly by the time when he was eventually seen in the hospital, with the result that he was less likely to achieve complete remission, that he had a poorer

prognosis and that the chances of avoiding radical high dose chemotherapy, of avoiding a relapse and of ultimate survival were all reduced (para 38 a). In other words, the appellant had proved that enlargement of the tumour during the nine months delay had an adverse effect on the nature of the treatment that was needed, on the course of his disease and on his prospects of a complete recovery. These consequences were within the scope of the doctor's duty to take reasonable care.

105. But the extent of the diminution in the appellant's prospects was the subject of statistical evidence. The judge held that 55% of patients with the appellant's type of cancer (he was ALK negative) would achieve complete remission as a result of initial treatment and that 42% would ultimately survive, of whom 35% would not have had to undergo high dose chemotherapy with stem cell treatment (para 38 c). He held that it was possible to say that the appellant would more probably than not have achieved complete remission with initial CHOP chemotherapy and without high dose chemotherapy with stem cell harvesting. But he also held that it was not possible to say that, without the adverse factors caused by the delay, the appellant would more probably than not have become a disease free survivor or that he would have avoided relapse and a further relapse after high dose chemotherapy (para 38 d). He held that by the date of the trial the appellant's prospects of a disease free survival had fallen to 25% (para 38 e).

106. Given these figures, the trial judge held that the appellant had not proved that he had suffered an injury as a result of the delay. This was not because the consequences of the delay were too remote or were not reasonably foreseeable. It was because the appellant had not proved that it was more probable than not that, had there been no delay, he would not have suffered those consequences (para 44). He said that, although he might have suffered them at different times, the appellant would on balance of probabilities have gone through the same sequence of setbacks and treatments, and that his outlook was not shown to be different from what it would have been had there been no negligence (para 48). It is axiomatic that the wrongdoer is not liable for any loss, injury and damage that would have happened anyway. It was not shown that, on a balance of probabilities, the outcome would have been any different if the doctor had not been negligent. So he declined to award him any damages for what had been proved, namely that the negligence caused a reduction in his prospects of a successful recovery. As these were the only damages claimed, the result of his decision is that the appellant has suffered a wrong but has been left without a remedy.

The problem of proof

107. The appellant claims that the judge should have treated the reduced susceptibility to treatment and the reduced prospects of a complete recovery that was its consequence as the loss of a thing of value to him which was the result of a proven injury. So he should have quantified this loss in accordance with ordinary principles. Alternatively he should have compensated him for the extent that the delay reduced his prospect of a complete recovery measured by the statistical evidence. The compensation that was sought was not just for general damages for the appellant's awareness that his life had been shortened and for his pain and mental suffering. It included a substantial element of special damages.

108. The fact has to be faced that the appellant was not able to prove on a balance of probabilities that had it not been for the enlargement of the tumour he would have made a complete recovery. But his case differs from those such as*Kenyon v Bell* 1953 SC 125 and *Hotson v East Berkshire Area Health Authority* [1987] AC 750. In those cases, as Lord Mackay of Clashfern pointed out in *Hotson* at p 785, the fundamental question of fact to be answered related to a point in time before the negligent failure to treat began, and it was to be treated therefore as a matter of past fact. He returned to this point at the end of his speech where, having examined the judgments in*Herskovits v Group Health Cooperative of Puget Sound* (1983) 664 P2d 474, he said at pp 789-790:

> "I have selected references to the views expressed by the judges who took part in this decision to illustrate the variety of views open in this difficult area of the law. These confirm me in the view that it would not be right in the present case to affirm the general proposition for which Mr Whitfield contended [that damages could not be awarded for loss of a chance: see p 783]. On the other hand, none of the views canvassed in *Herskovits'* case, 664 P2d 474, would lead to the plaintiff succeeding in the present case since the judge's findings in fact mean that the sole cause of the plaintiff's avascular necrosis was the injury he sustained in the original fall, and that implies, as I have said, that when he arrived at the authority's hospital for the first time he had no chance of avoiding it. Accordingly, the subsequent negligence of the authority did not cause him the loss of such a chance."

109. The judge in this case said that the time for evaluating what would have happened in the past is the trial, and that that is the time when what would have happened has to be established on the balance of probability (para 42). In my opinion he fell into error at this point. The question is whether, given the state of facts which existed before the defendants' negligence, the loss could have been avoided if things had been done differently. This case is different from *Hotson*, where the probable effect of the delay in treatment was determined by the state of facts existing when the plaintiff was admitted to hospital. So, as Lord Mackay put it in the passage I have just quoted, he had no chance of avoiding the consequences of that delay. Any suggestion that he was entitled to damages because his expectation of life had been reduced by the delay in treatment would, of course, have received the same answer. In this case the enlargement of the tumour - the injury which affected the appellant's prospects of a successful recovery - still lay in the future when the appellant was seen by the doctor. The entire case rests on the hypothesis that his illness might have taken a different course but for *this* injury which was caused by the delay in treatment.

110. The case differs too from *Herskovits v Group Health Cooperative of Puget Sound* (1983) 664 P2d 474, to which Lord Mackay referred in *Hotson*, where the claim was for damages in respect of Mr Herskovits' death. In our case the appellant is happily still alive. In *Hotson*, p 782 Lord Bridge of Harwich stated that while in some cases, perhaps particularly medical negligence cases, causation may be so shrouded in mystery that the court can only measure statistical chances, the general rule is that the issue as to the cause of a past event must be resolved on a balance of probabilities. Those cases did not need to deal with the problem of how to prove hypothetical events that still lay in the future on the date of the alleged negligence - events which, as Lord Nicholls has pointed out, the defendant's wrongful conduct precluded from

ever materialising. In this case the effect of the judge's findings is that the probable sequence of setbacks and treatments and the prospects of a successful outcome were already determined by the state of facts when the doctor saw the appellant in November 1994. But the enlargement of the tumour which was caused by the doctor's negligence still lay in the future, and it is on the enlargement of the tumour and its consequences for the prospects of recovery that the appellant's cause of action is based.

111. It hardly needs to be said that predicting someone's expectation of life from any given date is almost always an uncertain exercise. Leaving aside those cases where death is imminent and inevitable, the exercise is beset with uncertainty. The best one can do is identify the factors, good and bad, and assess their effect on the individual's prospects. The same is true where the claim is for the reduced prospects of survival following illness or injury. Nevertheless where a person claims that his expected date of death is earlier than it would have been if he had not sustained injury due to the defendant's negligence, the ordinary rule is that he must prove this fact and the extent of the diminution in his prospects on the balance of probabilities. Statistics may act as a guide. In some cases they may be the only guide that it is available. But they are no more than a guide to that which must be proved. This is because the claim is personal to the individual. It is the effect of the injury on his own prospects of survival that sounds in damages, not the effect which injuries of that type may have on the population generally.

112. The simple case is where the comparison is between the date of a person's expected date of death due to an injury and the date when he would have been expected to die if he was in good health and had not sustained that injury. In cases of that kind actuarial tables are commonly used to identify the person's expectation life if he had not sustained the injury. What then has to be proved on the balance of probabilities is that his expectation of life has been reduced by the injury and, if so, the amount of the reduction. The comparison is between the product of an exercise of statistics on the one hand and an assessment of the effects of the injury on the individual's expectation of achieving it on the other.

113. But that is not the position in this case. The evidence was that the appellant was already suffering from cancer when he was seen by the doctor. It had reduced his expectation of life in any event. Even if there had been no delay, the cancer had reduced his expectation of life below that indicated by actuarial tables for a man of his age who was in good health. To this extent the die was cast by facts out of the doctor's control before his involvement. So the comparison on which the appellant's case depends is between two assessments - the effects of the tumour on his life expectancy when the doctor saw him, assuming there was no delay in its treatment thereafter, and the effects on his life expectancy of its enlargement during the period of delay due to the doctor's negligence. It was proved on the balance of probabilities that there was indeed a difference between these two assessments as a matter of statistics, viewing the position across the population generally. But it was not proved that this appellant had an expectation of a different outcome to his treatment, in the events which happened, from what his expectation would have been if there had been no negligence. This was because his prospects of a complete recovery when the doctor saw him were assessed at less that 50% in any event. Putting the matter another way, it was not proved that he would have survived the effects of his cancer if there had

been no negligence. But, in contrast to the situation in *Hotson*, the fundamental questions of fact relate to a point in time after the date of the doctor's negligence. The actionable injury in this case - the enlargement of the tumour - occurred after that date. It was caused by the delay in diagnosis. All the judges in the Court of Appeal were agreed on that point. It was this injury which caused a significant reduction in the appellant's prospects of a successful outcome.

Discussion

114. It is plain that the court was not in a position in this case to base its decision on the assumption that the appellant would have achieved a complete recovery but for the doctor's negligence. It was not proved that prompt diagnosis and treatment would have made any difference to his life expectancy. This was because it was not proved that the treatment would have been successful however prompt had been the diagnosis. Must the conclusion then be that no damages are due for the proved and significant reduction in the prospects of a favourable outcome, notwithstanding the fact that this was caused by a delay in treatment which it was within the scope of the doctor's duty to prevent when he examined his patient? I think that the law would be defective if that had to be the result.

115. In *Kenyon* and *Hotson*, as I have said, the fundamental questions of fact as to whether or not the treatment would have been successful related to a point of time before the negligent failure in treatment. On the facts of those cases the question whether the loss would have occurred if there had been no negligence had to be treated as a question of past fact. The settled rule is that what has happened in the past must be proved on a balance of probabilities. As the issue in these cases related to a point of time before the alleged negligence, they did not raise any hypothetical question as to what the position might have been had events turned out differently. It can also be said that the loss of the opportunity that prompt treatment would have given for a different outcome was not the way the claim was presented in either case. In *Kenyon's* case the claim was the loss of the eye. In *Hotson's* case it was for the avascular necrosis. Commenting on those decisions in *Kyle v P & J Stormonth Darling WS,* 1992 SLT 264, 267A-B, Lord Prosser said that the loss of opportunity was part of the causal sequence which might or might not have led to the damnum or loss resulting from the injuria, but that the damnum lay not in the loss of opportunity but in the loss of the eye or the necrosis. That approach does not fit with the facts of this case. It is distinguishable on its facts from *Hotson* because at the date of the doctor's negligence the effect of the delay on the appellant's prospects of a successful outcome still lay in the future. The question which would have been of compelling interest to the appellant, the answer to which could at best only be assessed and predicted at that date, was what his prospects were of a successful outcome assuming that the tumour was treated immediately. The essence of his claim lies in the effect which the enlargement of the tumour caused by the doctor's negligence had on this contingency.

116. What then was the nature of this contingency? Some forms of cancer are notoriously difficult to treat. But treatment is undertaken nevertheless, in the hope that the patient will survive at the end of it. The earlier it is discovered, the better are the prospects of treating it successfully. The patient values his prospects of survival, even if he is told that they are less than fifty-fifty. It should make no difference whether his

prospects are over fifty-fifty or less than that, so long as they were significant and not illusory. If the prospects were speculative or illusory, the law will ignore them. *De minimis non curat Praetor.* But if they were significant the appellant is entitled to feel that he has lost something if something was done, or omitted to be done, which reduced those prospects. It is not right to describe this simply as the loss of a chance. It has been demonstrated that there was a significant reduction in his prospects of a successful outcome. Irrespective of whether it is proved that in his case the cancer was capable of being treated successfully, the fact is that his prospects of a successful outcome were significantly less than they would have been but for the doctor's negligence.

117. The key to the decision in this case lies, I think, in the way in which the appellant's cause of action is identified. The description of it as a claim for the loss of a chance is invited by the approach which the pleader has taken to the issue of damages. The description is apt in cases where the claim is for an economic loss or the loss of something to which the claimant has a right, such as in *Chaplin v Hicks* [1911] 2 KB 786 and *Kitchen v Royal Air Force Association* [1958] 1 WLR 563. But that is not what this claim is about. It is, in essence, a claim for the loss and damage caused by the enlargement of the tumour due to the delay in diagnosis. It is for the loss and damage caused, in other words, by a physical injury which the appellant would not have suffered but for the doctor's negligence. The fact that there was a physical injury has been proved on a balance of probabilities. So too has the fact that, in addition to pain and suffering, it caused a reduction in the prospects of a successful outcome. I would hold that, where these factors are present, the way is open for losses which are consequential on the physical injury to be claimed too. I do not think that those consequences of the physical injury should be treated as if they were the product of a separate cause of action from the pain and suffering. I see the reduction in the prospects of a successful outcome as one element among several in the claim for which there is a single cause - the enlargement of the tumour. This was a physical injury, the avoidance or minimisation of which was within the scope of the doctor's duty of care when the appellant consulted him.

118. I would distinguish this case from those where a claim is made for compensation for a disease from which the claimant does not presently suffer and with which, perhaps more likely than not, he will not ever be afflicted. In cases of that kind the claim that there is an increased risk of contracting the disease may be regarded as a speculative claim for future harm. It will be dismissed if the claimant cannot prove on a balance of probabilities that he will suffer from the disease. In this case the appellant was already suffering from the cancer from which he claims, as result of the doctor's negligence, to have a diminished prospect of a successful recovery. I would distinguish it too from cases where the evidence shows that on a balance of probabilities the claimant would have suffered the damage in question anyway because of other factors not related to the wrongdoer's negligence.

119. An analogy may be drawn with cases where it is proved that a person's employment prospects, or his prospects of promotion, have been adversely affected by a physical injury. The claimant is not required, in a case of that kind, to prove on a balance of probabilities what his employment record would have been or that he would in fact have been promoted but for his injury. It is enough for him to prove that there was a prospect immediately before he was injured which he has lost due to the

wrongdoer's negligence. The claim is for the loss of prospects assessed as at that date, not for the loss of a certainty. Some evidence is, of course, needed to enable the court to assess those prospects. Without that evidence the claim would be speculative, as any decision would be based on pure guesswork. But the law does not insist on proof that events would in fact have taken the course that the prospects relied upon have indicated: see, for example, the approach which Griffiths LJ took to the claim for loss of earnings in the case of a very young child in *Croke v Wiseman* [1982] 1 WLR 71, 83; see also *Doyle v Wallace* [1998] PIQR Q146, where there was a significant chance that the claimant would have qualified and become a drama teacher, and *Langford v Hebran* [2001] PIQR, Q160 where the claimant's chances of achieving fame and fortune as a kick-boxer at various stages in his career were evaluated on a scale from 80% to 20% and damages for his loss of earnings awarded accordingly.

120. Other examples of this approach to the part that loss of prospects plays in the assessment of awards of damages for a physical injury can be found in the awards made for the loss of prospects of marriage: see *Harris v Harris*[1973] 1 Lloyd's Rep 445, 447 per Lord Denning MR; *Hughes v McKeown* [1985] 1 WLR 963. In *Girvan v Inverness Farmers Dairy*, 1996 SC 135, 137 Lord McCluskey noted that one of the heads of claim that were not in dispute in that case was that the pursuer's injuries had made it impossible for him to continue as a dedicated clay pigeon shot and had as a result lost the very real prospect of winning substantial cash prizes and other valuable trophies and prizes. It seems to me that the appellant's claim for the diminution in his prospects of a successful outcome from his treatment for cancer falls into the same pattern. That there was a diminution in his prospects is not just a matter of speculation or guesswork. There was sufficient evidence to establish this as a fact. He could not prove that he was denied a cure for his cancer. His prospects of a successful outcome were already less than fifty-fifty. But they were nevertheless significant. And he proved that his chance of a cure was reduced as a result of the physical injury caused by doctor's negligence. In my opinion he is entitled to receive recognition of that fact in an award of damages.

Conclusion

121. I would hold therefore that the significant reduction in the prospects of a successful outcome which the negligence caused is a loss for which the appellant is entitled to be compensated. If it is necessary to prove that this loss was caused by a physical injury, the enlargement of the tumour which the negligence caused was such an injury. But I agree with Lord Nicholls that the fact that the appellant was already suffering from illness at the date of the doctor's negligence from which he had at that date significant prospects of recovery provides him with a cause of action for the reduction in those prospects that resulted from the negligence. I also agree with him that what has to be valued is what the appellant has lost, and that the principle on which that loss must be calculated is the same irrespective of whether the prospects were better or less than 50%.

122. In my opinion the correct starting point for the award for the reduction in prospects is the judge's assessment of the prospects of a successful outcome if the doctor had not been negligent. The loss which he would have suffered should be calculated in the first place on the assumption that what the appellant lost when he

was seen by the doctor was the certainty of a complete recovery. The result of that calculation will then need to be discounted to reflect the judge's findings as to the prospects of a complete recovery in view of the nature of the cancer from which the appellant was already suffering when the doctor was negligent. For the reasons which he explained in para 51 of his judgment, the judge would have discounted the damages that he would have awarded for the loss of a certainty of a cure by 80%. I would hold that the discounting exercise which he undertook was the right approach in principle, although the figures which led the judge to his conclusion are difficult to reconcile.

123. For the reasons which I have given at the outset of this opinion, however, I had hoped that it was not too late for the pain and suffering which the appellant suffered due to the tumour's enlargement and the distress caused by his awareness that his condition had been misdiagnosed to be brought into account by way of an award of general damages. Unless this is done the appellant will be left with no remedy at all for the consequences of the doctor's negligence. Very properly, as the facts that are needed are already there in the evidence and the action remains alive until this appeal and any further proceedings which may flow from it have been disposed of, the respondent does not suggest that it would be either incompetent or unfair for the claimant to seek such an award at this stage. The majority view that the appeal must be dismissed has deprived the appellant of that opportunity.

124. It is worth noting also that in their response to written submissions which the appellant's counsel provided at the invitation of the House after the hearing on the issue of quantum counsel for the respondent accepted that, if an award were to be made of general damages which reflected merely the direct physical consequences of the delay and any consequent apprehension about early mortality, they should not be reduced in consequence of any loss of a chance argument. In my opinion this is a correct statement of the approach which should be taken when an award of that kind is being made. That remains the conventional way of dealing with an award of general damages, whatever the facts may be on which it is based.

LORD PHILLIPS OF WORTH MATRAVERS

My Lords,

125. This appeal has raised an important issue of policy. Should this House introduce into the law of clinical negligence the right of a patient who has suffered an adverse event to recover damages for the loss of a chance of a more favourable outcome? My noble and learned friend Lord Nicholls of Birkenhead has simplified the facts in order to identify with clarity the nature of this issue. I propose to take a different approach. I intend to wrestle with the complexities raised by the facts of this case. I do so because I have found it helpful, when considering the change in our law that is proposed, to examine the practical consequences of the change.

126. Ten years ago Dr Scott negligently failed to take appropriate action when his patient, Mr Gregg, drew his attention to a lump in his armpit. The negligence delayed by nine months the commencement of Mr Gregg's treatment for cancer. Mr Gregg is entitled to damages for the adverse consequences of this delay. It is impossible to say with certainty what, if any adverse consequences were caused by the delay. In these

circumstances an attempt has been made, with the help of medical expert evidence, to estimate in terms of percentage the chance that the delay caused the adverse consequences. The exercise has not been a simple one. It has involved the use of statistics. It does not appear that either the judge or the parties had the assistance of a statistician. Nor have we. In these circumstances I have felt some diffidence about forming my own conclusions about the import of the evidence. None the less, after lengthy reflection, I have reached the conclusion that counsel and the Court of Appeal have misunderstood both the effect of the evidence and the findings made by the trial judge, Judge Inglis, in relation to that evidence.

127. Four matters have complicated the task of evaluating the evidence in this case:

i) The complexity and yet the paucity of the statistical evidence;

ii) The procedural history;

iii) The novel approach taken on behalf of Mr Gregg to his claim for "lost years";

iv) The fact that Mr Gregg is still alive some nine years after the commencement of his treatment.

I propose to say a word about each, before embarking on a more detailed consideration of the facts.

128. *The statistical evidence:* Each side employed a medical expert and these reached a measure of agreement. Ultimately only Mr Gregg's expert, Professor Goldstone, gave evidence. He developed a model showing the expected fate of 100 patients diagnosed with the type of cancer from which Mr Gregg suffered, although the data on that type of cancer was sparse. He gave additional oral evidence about the effect on Mr Gregg's prognosis of the delay in commencing his treatment and on his expectation of life as at the date of the trial. The task of drawing from the totality of this evidence quantitative conclusions as to the effect of the delay on Mr Gregg's clinical history and on his expectation of life is particularly difficult.

129. *The procedural history*: Mr Gregg's claim was initially advanced as a conventional claim for having been deprived of an early and complete cure. This was on the basis of medical evidence that, on balance of probabilities, but for the delay in commencing his treatment he would have achieved such a cure. Before the trial, however, it was discovered that Mr Gregg had a rare type of cancer with a less favourable prognosis. This led Mr Gregg to advance an alternative claim for damages for the reduction of the chance of a favourable outcome. The judge held that Mr Gregg had failed to prove, on balance of probabilities, that the delay in commencing his treatment had adversely affected his clinical experience or expectation of life. He held that the alternative claim for loss of a chance was bad in law. He went on, however, to make findings that would have been relevant to such a claim and to sketch out the approach to quantifying damages in respect of such a claim.

130. In the Court of Appeal the focus was largely on Mr Gregg's claim for loss of expectation of life. Before this House submissions focussed exclusively on loss of expectation of life. It seemed to us that it was not possible to approach the issues

raised without also considering whether and on what basis Mr Gregg had a claim to other heads of damages. We sought further written submissions in respect of damages. The response to that request has persuaded me that the issue of principle raised by this appeal must be considered in the context of all heads of damages claimed.

131. *The claim for lost years:* In *Pickett v British Rail Engineering* [1980] AC 136 this House determined that where a defendant negligently causes bodily injury to a claimant which reduces the claimant's expectation of life, the claimant is entitled to recover as a head of damage the earnings lost in the "lost years". Where such a claim is advanced, the conventional way of determining the effect of the injury on expectation of life is as follows. The court determines what the claimant's expectation of life would have been but for the injury. The court then determines what the claimant's expectation of life is having regard to the effect of the injury. The difference between the two constitutes the "lost years". Statistical evidence is usually used in calculating both limbs of the determination.

132. In this case an unconventional approach to claiming for lost years has been adopted. Mr Gregg's claim has been advanced on the basis of the effect of Dr Scott's negligence on Mr Gregg's chance of being alive and disease free after 10 years. This, as I understand it, is treated for the purposes of medical statistics as being cured. I shall describe survival disease free after 10 years as "being a survivor". It is not quite clear to me what is the starting point for this 10 year period. I think that it is probably the date of commencement of treatment.

133. *Mr Gregg is still alive.* The claim for lost years has been advanced on the basis of a comparison between Mr Gregg's statistical chance of being a survivor as portrayed by Professor Goldstone's model and his actual chance of being a survivor. While statistics are of assistance in calculating the latter, Mr Gregg's clinical history up to the moment of assessment is of critical significance. At the time of the trial, Mr Gregg had survived about five years from commencement of treatment and, having regard to his clinical history Professor Goldstone estimated his chances of being a survivor as 20-30%. By the time of the hearing before us, Mr Gregg had survived a further three years, without relapse. This must plainly have resulted in a dramatic improvement in his prospects of being a survivor. It may be that his prospects of being a survivor are better than his statistical prospects would have been had his treatment been commenced timeously. This was not a matter that was raised at the hearing before us, but Mr Havers QC on behalf of Dr Scott now submits that, should the case be remitted to the trial judge for assessment of damages on a loss of a chance basis, he will have to take this into account in order to decide whether Mr Gregg has any claim for lost years. Alternatively he invites us to have regard to the implications of Mr Gregg's survival and to rule that no claim in respect of lost years has been made out.

The primary facts

134. The Statement of Facts agreed by the parties for the purpose of this appeal admirably summarises the primary facts as follow. Mr Gregg was born on 12 November 1951. In autumn 1994 he developed a lump under his left arm. This was due to a condition known as non-Hodgkin's lymphoma, a particular type of cancer. The cancer is of the subtype Anaplastic Lymphoma Kinase Negative ("ALK

Negative") which can be distinguished from ALK Positive lymphomas. The former type of cancer carries a worse prognosis. On 22 November 1994 he went to see Dr Scott, who was and is a general practitioner, for the first and only time. Among his complaints was the lump.

135. Dr Scott concluded that the lump was a lipoma, that is a benign collection of fatty tissue, and that no further action was called for. The trial judge concluded that this was negligent, not because Dr Scott was not entitled to conclude that the lump was probably a lipoma but rather because he was not entitled on the information before him, particularly the precise location of the lump, to exclude more sinister pathology with sufficient confidence to warrant taking no further action. The trial judge found that Dr Scott should have referred the appellant to hospital on a routine basis in November 1994.

136. In 1995 Mr Gregg moved home and registered with another general practitioner. He saw this doctor on 22 August 1995 and, again, raised the question of the lump. That doctor, too, concluded that the lump was probably a lipoma but referred the appellant to a surgeon at the Lincoln County Hospital for further investigation and examination. In his referral letter he described the lump as having gradually enlarged over the previous year. When Mr Gregg was seen at hospital, on 2 November 1995, the surgeon arranged for an urgent biopsy, which confirmed the presence of cancer.

137. There was some delay thereafter whilst the precise nature of the pathology was identified. A CT scan did not reveal spread of the disease elsewhere in the body. Mr Gregg was awaiting treatment when he was admitted to hospital as an emergency on 13 January 1996 with acute and intense chest pain. This was the symptomatic result of the spread of the cancer into the left pectoral region.

138. Chemotherapy was administered on six occasions and was then supplemented by a course of radiotherapy. Although the tumour responded, it did so incompletely. It was therefore decided that Mr Gregg should be subjected to high dose chemotherapy. This involved the harvesting of stem cells, the administration of chemotherapy and the subsequent replacement of the preserved stem cells. The treatment took place in Leicester in August 1996 and Mr Gregg was discharged in September 1996.

139. In early 1998 Mr Gregg suffered a relapse when he developed a tumour in the right axilla, which statistically gave him a very poor prognosis. The result was that the chemotherapy which was then started was intended to be merely palliative. He was told that he could not be cured. "Cure" in this context means that the patient has survived for at least 10 years without evidence of disease. In April 1998 there was thought to have been another relapse, although this was never demonstrated histologically. Nonetheless, a further course of palliative chemotherapy was prescribed. Since then, there has been no recurrence of the disease, so far as the parties are aware.

140. The effects of the history outlined above have been devastating for Mr Gregg and his life. He suffered severe side effects from the original treatment, in particular the high dose of chemotherapy in August 1996. He had to give up work. He felt very ill and has continued to feel weak and lacking in energy ever since. Since his relapse

in 1998 he has believed that he has been living on borrowed time. He was put on high dose steroids and became obese, as well as suffering when withdrawn from those drugs. Mr Gregg and his wife have been very anxious and distressed, and Mr Gregg has been preoccupied with his illness and possible death.

The expert evidence

141. Before statistics could be used in the present case it was necessary to determine, as a question of fact, the date when treatment would have commenced had Dr Scott referred Mr Gregg to hospital in November 1994 and the extent to which his cancer had developed between that date and the date when treatment was in fact begun in January 1996. As to this the experts were in broad agreement. The judge found that, had Dr Scott referred Mr Gregg in November 1994, his cancer would, in due course, have been diagnosed and his treatment would have commenced 9 months earlier than it did, that is in about April 1995 rather than in January 1996. The judge further found, on the basis of the medical evidence, that the significant spread of the disease to the left pectoral region occurred in the last months of 1995, that is after the date that he would have received treatment had Dr Scott not been negligent.

142. When the experts first advised in the present case, the use of the relevant statistics appeared relatively simple. There exists a prognostic index which is widely used as a predictive model for patients diagnosed with aggressive non-Hodgkin's lymphoma. This appeared to provide a satisfactory basis for estimating (1) what Mr Gregg's prognosis would have been had treatment begun in April 1995, before his cancer had spread, and (2) what his prognosis was having regard to the stage to which the disease had developed when treatment was in fact started.

143. In the years that elapsed up to the trial, in which judgment was given on 3 August 2001, events occurred which rendered the use of the prognostic index much more difficult. The first was the discovery that patients, such as Mr Gregg, with the ALK negative sub-type have a less favourable prognosis than those with the ALK positive sub-type. The evidence in relation to this is "immature". Mr Gregg's expert, Professor Goldstone, nonetheless did his best to develop a model which adjusted the prognostic index so as to predict the expected fate of 100 patients diagnosed with the ALK negative lymphoma. The judge accepted the evidence that Professor Goldstone gave as the basis for deciding the questions of causation and damages.

144. The other matter which made the use of statistics more difficult was the contrast between their indication of the probable progression of a patient in Mr Gregg's position and Mr Gregg's actual experience in the five years that elapsed between the commencement of his treatment and the trial.

145. The judge set out at length the statistical evidence provided by the experts in the period leading up to the trial and Professor Goldstone's oral evidence at the trial. Oral expert evidence was not adduced by the defence.

146. Professor Goldstone's model showed with some particularity the fate of those in his cohort of 100. The judge summarised this evidence in a paragraph which also included Professor Goldsmith's estimate of Mr Gregg's survival prospects as at the date of the trial:

> "Of those with initial treatment by CHOP chemotherapy with or without field radiotherapy 55 will achieve complete remission. 45 will not achieve complete remission, and of those 41 will then die. Four who did not achieve complete remission immediately will be brought to achieve it by further treatment of various kinds. Thus of the initial 100 59 manage to achieve complete remission. Of those 35 do not relapse. They are described by Professor Goldstone as the core group of survivors. 24, however, do relapse (usually, if they are going to, within two years or so of achieving remission). Of those 24 half, a further 12, will not be responsive to further treatment and will die. The remaining 12 will be responsive to further treatment, typically high dose chemotherapy with stem cell harvesting such as the claimant himself went through. Of those 12 half, a further six, will not relapse again and will become survivors. Of the remaining six who do relapse again, only one will survive. The number of survivors from the 100 who started out will therefore be 42. Mr Gregg's disease and treatment has not quite taken this course, since he is probably to be regarded as someone who attained complete remission only after stem cell treatment and high dose chemotherapy. But he is someone who, having received that treatment, subsequently relapsed. He may therefore be regarded as possibly the one survivor [at] the end of the process described in the model. He had after his relapse in early 1998 a 10% or 15% chance of survival. However, he has now survived over three years, and as time goes by the chances of relapse diminish. The best that Professor Goldstone can say of it now, however, is that given all that has happened, at present Mr Gregg's chances of survival for five years is less than 50%, though he put a figure of 20% to 30% as the present chance as best as he could assess it."

The fallacy

147. The Statement of Facts and Issues agreed by the parties included a statement that the judge found that the effects of the delay in commencing Mr Gregg's treatment meant that his "chances of long-term survival fell as a result of the negligence from 42% (on initial presentation to [Dr Scott]) to 25% (as at the date of trial)". The Court of Appeal drew the same conclusion. I believe that it was fallacious.

148. Latham LJ stated that the "the assumption was" that the cohort that made up Professor Goldstone's model "consisted of patients with the same stage of disease as that from which the appellant suffered at the time when treatment should have been commenced". This assumption was, I suspect, critical to the conclusion to which I have referred in my previous paragraph. Even if the assumption were correct I do not believe that the conclusion followed. But I question the assumption. When describing Professor Goldstone's model, the judge stated: "The 100 patients in the worked example include all ages, and also people with other unrevealed personal characteristics, *one of which is the stage of the disease at diagnosis"* (emphasis mine).

149. For the purposes of argument I am prepared to assume, however, that Professor Goldstone's model evidenced Mr Gregg's statistical chances at the time when his treatment should have commenced. It does not follow that the difference between this and Mr Gregg's actual prognosis at the time of the trial was attributable to the delay in starting his treatment. The judge did not state that this was the case. Nor did Professor Goldstone. Had it been the case there would have been no need for

the further evidence given by Professor Goldstone on the likely effect of the delay in commencing Mr Gregg's treatment. Nor would there have been room for the consideration of this question which the judge was to give at a later stage of his judgment, to which I shall come in due course and which was inconsistent with the simple premise that the delay in commencing his treatment had reduced Mr Gregg's chances of being a survivor from 42% to 25%.

150. At this point I would like to identify two other examples of what I believe to be misuse of statistics. In the Court of Appeal Latham LJ accepted the following argument advanced on behalf of Mr Gregg:

> "There is no doubt that in the present case, the delay in diagnosis caused the tumour to enlarge, invade neighbouring tissue and cause severe pain. It was the enlargement of the tumour which reduced the chances of successfully treating it. This aspect of the plaintiff's claim was never addressed by the judge. Nonetheless, the judge's findings amply support the submission that the appellant had indeed suffered injury which entitled the appellant to general damages for the pain and suffering which were the physical consequence of the spread of the tumour, an assessment of the extent to which delay resulted in more intensive therefore damaging treatment, an assessment of the increased risk of relapse and the adverse effect on prognosis, involving an assessment of the consequences to the appellant's expectation of life."

That approach, if correct, would seem to lead to the conclusion that had Mr Gregg received prompt treatment, his chances of surviving without relapse or further treatment would have been 60% and his chances of surviving, with further treatment if necessary, would have been 75%, for these are the prospects according to Professor Goldstone's model for those achieving initial complete remission.

151. Mance LJ dismissed the analysis on the following basis:

> "The head of loss in respect of which the claimant is seeking to claim is diminution of his life expectancy. That represents a substantive head of claim, for which the claimant could recover if he could show, as a matter of probability, that the respondents' negligence had caused it. If damages cannot be recovered for that as such, it is because the appellant cannot show (as I have concluded that he would have to) that he was not already going to suffer that head of loss, independently of the negligence. It is not possible to change the starting point to the enlarged tumour and to ask the court to assess the prospects that this made any difference to the claimant's life expectancy."

152. With respect, I do not find this reasoning wholly convincing. It reflects, I suspect, a reaction against treating Mr Gregg's chances of achieving initial remission, if treated promptly, as a certainty, when statistically they were only 55%, and using this as a base for the exercise of calculating, on a basis of statistics, the effect of the delay on his life expectancy.

153. There are other objections to Latham LJ's approach, and indeed to the approach which leads to the conclusion that the delay in starting Mr Gregg's treatment reduced his chances of being a survivor from 42% to 25%. Professor Goldstone's

model simply showed statistically the likely fate of his cohort of 100. It gave no indication of the factors that would determine what would befall an individual member of that cohort. Mance LJ convincingly speculated:

> "the most obvious influencing factors are, one would suppose, internal to the claimant at the time of the negligence, however unknown or unknowable they may be; and they consist of the precise characteristics, development and spread of the cancerous cells at the time of the negligence as well as the claimant's precise physical characteristics and resistance. Other influencing factors may very well include subsequent events such as the particular medical treatment received, the patient's subsequent life-style and his or her, or indeed others', reaction to the stress inevitably incurred."

154. The assumption that Mr Gregg would have achieved initial complete remission had he been treated promptly is the obverse of the assumption that the reason why he did not achieve complete remission on initial treatment was that by then his cancer had spread. Neither is axiomatic. The possibility exists that some other factor existed which would have prevented Mr Gregg from achieving initial complete remission, if treated earlier, and which in fact prevented initial complete remission when he was treated. In the absence of other evidence the assumption of a probable link between the fact that his cancer had spread and the fact that he did not obtain initial complete remission was, however, a reasonable one.

155. More tenuous was the assumption that the difference between Mr Gregg's 42% chance of being a survivor (on the basis of Professor Goldstone's model) and his 25% prospect of being a survivor, as assessed at the date of trial, was attributable to the fact that, before treatment had begun, his cancer had spread to the pectoral region. Professor Goldstone's model showed that, of the 42 destined to be survivors, all but four (at the most) achieved initial complete remission. Of the 55 who achieved initial complete remission between 38 and 42 were destined to be survivors. Of the 45 who did not achieve initial complete remission, four at the most were destined to be survivors. The degree of uncertainty in these figures reflects the fact that Professor Goldstone's model gives no figure for the prospect of surviving of the small sub-category of four who achieve complete remission, not initially but after further treatment of various kinds. Mr Gregg's subsequent clinical history demonstrated that he fell into this small sub-category. It seems to me that, so far as his chances of surviving were concerned, once Mr Gregg had achieved complete remission, Professor Goldstone's model gave no reason to think that Mr Gregg was worse off than he would have been had his treatment commenced nine months earlier.

156. Professor Goldstone's model demonstrated, however, that what then happened to Mr Gregg placed him in a further small sub-category - the six who relapsed after remission, responded to treatment, and then relapsed again. Of these six, on Professor Goldstone's model, only one survived. This led Professor Goldstone to comment that Mr Gregg might be regarded as "possibly the one survivor". Although statistically his prospects of surviving after the second relapse were no better than one in six, by the time of the trial they had improved to 20% to 30% and were climbing daily.

157. All of this demonstrates that Professor Goldstone's model was a very inadequate tool for assessing the effect of the delay in treatment on Mr Gregg's

progress and prognosis and that his subsequent clinical progress was of critical significance in re-assessing this.

158. This last fact has not escaped those acting for Mr Gregg. In their written submissions on how to assess quantum they contend that the judge erred in not having regard to the fact that Mr Gregg had, in fact, achieved complete remission so that the statistical evidence should have been applied to him on that premise. This led, so they submit, to the following conclusion:

> "The evidence was that 59 of the original 100 would have survived initial treatment and that the appellant was, necessarily, one of those. Of those 59, 17 went on to die. That amounts to (say) 28%. Thus, assessed at the date of trial the appellant would have had a 72% chance of survival had he received appropriate treatment. On the expert evidence that chance was reduced by the negligent delay: it had been 10%-15% assessed at the date treatment should have been given but had increased to 20%-30% as at the date of trial (paragraph 34, last sentence). Thus, if (as the judge did) one takes the mid-way point the appellant's lost chance assessed at the date of trial was 72% - 25% = 47%. In those circumstances the correct approach was to have awarded the appellant damages on the basis of a 47% loss of the chance of survival."

159. It seems that this submission was made to the trial judge and to the Court of Appeal, and rejected by each. Its fallacy, so it seems to me, is that it assumes that the deviation between Mr Gregg's clinical history after first remission and the statistical chances of surviving after remission was attributable to the delay in commencing Mr Gregg's treatment. I can see no basis for this conclusion.

Professor Goldstone's evidence

160. As I indicated earlier, neither Professor Goldstone nor the judge proceeded on the premise that the difference between the 42% chance of surviving depicted by Professor Goldstone's model and Mr Gregg's 25% chance of surviving, as assessed at the trial, was caused by the delay in commencing Mr Gregg's treatment. It is time to turn to see what Professor Goldstone and the judge did have to say about this.

161. In answer to a written question from counsel, Professor Goldstone stated, on the premise that one had regard to the limited data on the adverse effect of the ALK negative sub-type of cancer, that the upstaging of Mr Gregg's cancer in the period of delay turned his prospects of survival from the order of 30% to something in the order of 10%. He further estimated that, as at the date of the trial, his prospects of surviving were between 20% to 30% and climbing. Looking at the matter more broadly, he advised:

> "As to the effect of delay on the course of treatment, if he does not survive he would have gone through the various stages anyway. The probability is that he will not survive. If he does, it is more likely than not that he would have been cured by simple treatment, CHOP only, or less therapy, but that is using the overall data and not the ALK data."

The judge's findings

162. The judge in his findings went rather further than this last statement by Professor Goldstone. The judge held that, if Mr Gregg had been treated promptly:

> "It is possible to say on the basis of Professor Goldstone's model that he would more probably than not have achieved complete remission with initial CHOP therapy and without high dose chemotherapy with stem cell harvesting."

163. The judge, applying a conventional test of balance of probability, dismissed Mr Gregg's claim. He held:

> "In this case the claimant has failed to prove that it is more probable than not that the outcome for him, looked at at the time of trial, would have been materially different had he been treated nine months earlier. Since the burden of proof lies on the claimant that means it should be taken as more probable than not that, treated earlier, the claimant would nonetheless have had at some stage to undergo high dose chemotherapy with stem cell harvesting, would have relapsed, and would thereafter have had a very poor prognosis for survival …"
> "Although he might have suffered them at different times, Mr Gregg would on the balance of probabilities have gone through the same sequence of setbacks and treatments, and his outlook now is not shown to be different from what it would have been had there been no negligence."

164. The judge went on to make findings to cater for the possibility that his approach was incorrect and that Mr Gregg was entitled to advance his claim on the basis of loss of a chance. In so doing he followed the approach of Andrew Smith J in *Smith v National Health Service Litigation Authority* [2001] Lloyd's Rep Med 174. He held:

> "50. The approach in *Smith*, as applied to this case would be to say that in the spring of 1995 the claimant had a chance of achieving disease free recovery after the application during the summer and autumn of 1995 of one course of CHOP chemotherapy treatment possibly with radiation, a course that would last six months or so. He had a chance, which is taken to be a less than evens chance, of achieving a combination of complete remission and not relapsing. He no doubt had a chance also of an intermediate position, for example of having to have high dose chemotherapy, but not relapsing thereafter. The evidence does not enable me to come to a conclusion about each of the routes by which, at the time of trial, the claimant could have been taken to arrive at a state of disease free recovery. As a question of fact, however, I think that I should quantify the diminution, by reason of the delay, in the claimant's chance of achieving disease free status after the initial six months treatment.
> 51. Professor Goldstone was unable to put a percentage figure on that chance. It has to be taken as less than evens, because if he had been able to commit himself to the delay having turned a probability into an improbability the claimant would simply have won on causation. It might be said that since neither he nor Dr Bunch put a figure on it, the court should not. I do not agree. Once the effect of delay is said, as here, to be substantial, putting a figure on the chance is a jury question, as it was to the judge in *Smith* in similar circumstances. In his first report Professor Goldstone said that the claimant's

chances of successful treatment were "massively reduced" by the delay, but his more cautious approach by the time of the trial resulted from emerging knowledge, particularly about the possible effect of ALK negative status. The experts thought it possible that his individual prognosis had been reduced to less than 50% of what it would have been intrinsically at the outset. So, for example, if he had a 45% chance of a good outcome, that could have been reduced to 20% by the delay. If he had a 45% chance lost completely because of the negligence, then that would translate into an award of 45% of the damages that would be awarded had the certainty of a good outcome been lost completely. But the chance was not lost completely, only reduced, and if a chance is to be given a cash value, a 45% chance is worth much less to start with than, for example, a 75% chance. I think it right to take roughly half of the less than evens chance as being the measure of the reduction of the possibility that the claimant might in any event have achieved disease free status after one course of treatment. The loss of chance award will therefore be 20% of the damages that would have been awarded for the loss of the certainty of cure after one initial six months course of treatment. The calculation therefore involves deciding what would have been the award for the loss of that certainty, and then discounting it by 80%."

165. The judge then proceeded to make findings as to the damages that would have been recoverable on a 100% recovery basis. He dealt first with loss of earnings in the period up to trial. Next he turned to future loss of earnings. In this context he made the following findings:

> "57. The claimant's life expectancy now has not been the subject of direct evidence, though life expectancy is an essential piece of information for the calculation of future loss, both during an expected life period, and for a lost years claim afterwards. I think that if possible a figure must be arrived at. It is not permissible to take the loss to retirement age and discount it for the claimant's own risk of mortality (as opposed to the discount applied for the male population as a whole). The finding I have made is that he has a 25% chance of surviving five years. The present state of his chances was only expressed as to five years. It would be wrong to say from that that his life expectancy is therefore 15 months, because that would be to assume that he will definitely die within five years. In increasing that 15 months without any scientific basis I must be cautious, and err if at all, in the absence of evidence, in favour of the defendant. I would without confidence arrive but nonetheless arrive at an expectation of life from now of four years, and calculations should be based on that.
> 58. That means that applying the multiplicand I have previously identified to loss of earnings, there will be a four year multiplier appropriately discounted for acceleration and care will continue for the same period. Thereafter, since I have adopted a multiplier / multiplicand approach a lost years' claim is properly sustainable, and I do not regard it as too speculative. The basis is that employment would have continued to normal retirement age at 65, since the assumption on which the claim is predicated is one of disease free survival."

166. I have the greatest admiration for the manner in which the judge applied himself to this most difficult case and this passage of his judgment covered an area of

particular difficulty. The problem was that all the evidence had focussed on Mr Gregg's chances of surviving, disease free, for 10 years from the start of treatment. That, as I understand it, was why Professor Goldstone addressed himself to Mr Gregg's chances of surviving for five years from the date of trial, which itself started five years after the commencement of treatment. The judge's approach equated disease free survival after 10 years with survival for the rest of Mr Gregg's working life. While this may not have been realistic, I do not see that the judge had any data which would enable him to adopt a more realistic approach.

Applying a loss of a chance approach to the facts of this case

167. Mr Gregg suffered a series of adverse events beyond the initial development of his cancer:

i) The spread of the cancer to the pectoral region, accompanied by acute pain;

ii) High dose chemotherapy with harvesting of stem cells;

iii) Relapse when a tumour developed in the right axilla, accompanied by chemotherapy

iv) Psychiatric distress on being told that this relapse meant that he would die

v) A further suspected relapse with additional chemotherapy.

He may also suffer a further adverse event: premature death within 10 years of the commencement of treatment.

168. The chance that the delay in commencing his treatment has caused each of these adverse events is not the same. The evidence did not, however, permit the judge to make nice differentiations. He simply addressed himself to assessing the chance that, if Mr Gregg had received prompt treatment, he would have avoided all these adverse events. He concluded that his chance of so doing had been reduced by 20% as a result of the delay in commencing his treatment. He thus equated Mr Gregg's lost chance of avoiding the adverse events prior to trial with his lost chance of avoiding premature death.

169. It is no longer possible to reach such a conclusion. The closer that Mr Gregg comes to being a survivor the smaller is the likelihood that the delay in commencing his treatment has had any effect on his expectation of life. At the same time, Professor Goldstone's model and his other evidence indicate that if Mr Gregg proves to be a survivor, the odds are high that he would have achieved complete and final remission if treated before his cancer had spread. On balance of probability I suspect that one is now in a position to conclude that the delay in commencing Mr Gregg's treatment has not affected his prospect of being a survivor but has caused him all the other adverse events which I have set out above. If his claim is to be assessed on the basis of a loss of a chance, some discount will have to be made for the small possibility that, even had he been treated promptly, he would have experienced the same adverse events and some small award may fall to be made for the loss of a chance of living 10 years, unless such an exercise is swept away as being "de minimis".

170. My Lords, these reflections on the present case demonstrate, so it seems to me, that the exercise of assessing the loss of a chance in clinical negligence cases is not an easy one. Deductions cannot safely be drawn from statistics without expert assistance. I am all too well aware that I have drawn a number of deductions from the evidence in this case without expert assistance and that these are at odds with those that have been drawn by others. Even if some of my deductions can be shown to be unsound, I hope that I have demonstrated that analysis of the evidence in this case is no easy task. In contrast, the task of determining the effect of Dr Scott's negligence on a balance of probabilities was very much easier. It is always likely to be much easier to resolve issues of causation on balance of probabilities than to identify in terms of percentage the effect that clinical negligence had on the chances of a favourable outcome. This reality is a policy factor that weighs against the introduction into this area of a right to compensation for the loss of a chance. A robust test which produces rough justice may be preferable to a test that on occasion will be difficult, if not impossible, to apply with confidence in practice.

171. On the other hand it is hard to justify a test which results in substantial injustice simply on the ground that it is easier to apply. I have given careful consideration to the reasoning of my noble and learned friends Lord Nicholls of Birkenhead and Lord Hope of Craighead but I am not persuaded that the injustice that they identify is as cogent as they suggest or that it justifies the change to our law that Lord Nicholls of Birkenhead proposes. While Lord Hope of Craighead has endorsed Lord Nicholls of Birkenhead's conclusions he has added reasons of his own for allowing this appeal which I have difficulty in reconciling with Lord Nicholls of Birkenhead's approach.

172. In *Fairchild v Glenhaven Funeral Services Ltd* [2003] 1 AC 32 this House made a change in the law of negligence in the interests of justice. The change benefits a workman who has contracted a mesothelioma after being exposed to asbestos fibres by a series of employers. An employer who has contributed 20% of that exposure and thus 20% to the employee's risk of contracting the disease will be liable *in full* to the employee, albeit that the chances are 5 to 1 that he is not in fact responsible for causing the disease. In this case Lord Nicholls of Birkenhead proposes a different approach in the case of a doctor whose negligence has decreased the chance that a patient will be cured of a disease. Under that proposal the doctor will be liable *to the extent* that his negligence has reduced the chance of a cure. My Lords it seems to me that there is a danger, if special tests of causation are developed piecemeal to deal with perceived injustices in particular factual situations, that the coherence of our common law will be destroyed.

173. In enquiring whether justice requires a change to our law, I propose to consider four different heads of claim that may be brought by a living claimant. These are:

i) A claim that negligence has caused a discrete injury;

ii) A claim that the injury so caused may, in the future, cause further injury;

iii) A claim that the injury so caused has reduced the claimant's expectation of life;

iv) A claim that negligence has reduced the prospect of cure of a fatal illness.

I shall, in discussing these heads, refer to the facts of the present case for purposes of illustration.

A claim that negligence has caused a discrete injury

174. Under our law as it is at present, and subject to the exception in *Fairchild,* a claimant will only succeed if, on balance of probability the negligence is the cause of the injury. If there is a possibility, but not a probability, that the negligence caused the injury, the claimant will recover nothing in respect of the breach of duty: *Hotson v East Berkshire Health Authority* [1987] AC 750; *Wilsher v Essex Area Health Authority* [1988] AC 1074. There is an argument that justice would be better served if, in such a situation, damages were recoverable for the chance that the negligence may have caused the injury. Neither Lord Nicholls of Birkenhead nor Lord Hope of Craighead considers that in this case we should hold that those two decisions of this House are no longer good law. I agree. So to hold would have implications for the balance of probability test of causation in other areas of our law. That consideration could better be given by the Law Commission than this House and it certainly has not been given in the present case.

175. As I understand the speech of Lord Hope of Craighead, he would hold the normal rule applicable in the present case. His analysis is that, on balance of probability, Dr Scott's negligence caused the enlargement of Mr Gregg's cancer with consequent pain and suffering and that Mr Gregg is entitled to general damages for this head of damage in full. If so, I believe that he differs from Lord Nicholls of Birkenhead, as I shall show when I come to consider the fourth head of claim.

A claim that injury caused by negligence may cause further injury

176. It is commonplace for an injury caused by negligence to carry with it the chance that it may lead to further injury, such as arthritis or epilepsy. The usual approach of the English court is to make a single award of damages which has regard to this chance of future injury. In some circumstances, however, it is more satisfactory for a claimant to recover damages in respect of injury actually sustained and to have the right to claim further damages if and when that injury is shown to have led to further injury. In such circumstances, the court can make an order for provisional damages - see section 32A of the Supreme Court Act 1981. The test of causation in relation to both the original injury and a subsequent injury alleged to be consequent upon the original injury is balance of probability.

A claim that injury caused by negligence has reduced the claimant's expectation of life

177. I agree with Lord Hope of Craighead that this case has been made peculiarly difficult to analyse by reason of the fact that, at least before this House, the only claim advanced has been a claim for loss of expectation of life. English law in relation to personal injury has yet to recognise a claim for the loss of a future prospect that is not consequent upon an established injury. It does, however, recognise that a claimant who has sustained such an injury can recover damages for loss of expectation of life,

or "lost years". Such a head of claim has been established by decisions of this House, and is something of an oddity.

178. Most of us, if asked why we would not wish to die prematurely, would respond that we would not wish to be deprived of the pleasures of a full life including the enjoyment of the company of those we love. The law, however, gives only token compensation for such loss. What it does give is compensation for the earnings that the claimant will be unable to achieve once he is dead. There is a reason for this.

179. Section 1(1) of the Fatal Accidents Act 1976, as amended, provides:

> If death is caused by any wrongful act, neglect or default which is such as would (if death had not ensued) have entitled the person injured to maintain an action and recover damages in respect thereof, the person who would have been liable if death had not ensued shall be liable to an action for damages, notwithstanding the death of the person injured.

Those who can bring the action are the dependants of the deceased and the damages that they can claim represent the loss of the dependency. They have, of course, to prove that the death was caused by negligence on balance of probability.

180. In *Pickett v British Rail Engineering Ltd* [1980] AC 136 a claimant suffering from mesothelioma had brought a claim against his employers and won, but his claim for loss of earnings consequent upon his anticipated premature death was not allowed. He appealed and then died. His personal representatives pursued the appeal to this House. The House proceeded on the assumption that, because the claimant had brought a successful claim for his personal injury, a claim by his dependants under the Fatal Accidents Act was precluded, although Lord Salmon emphasised that he expressed no concluded opinion about the correctness of that assumption. In these circumstances the House held that damages could be recovered for loss of earnings in the claimant's lost years. Only in this way could provision be made for the loss to be suffered by the dependants.

181. It was soon recognised that this decision gave rise to problems where the heirs of the deceased were not his dependants - see *Gammell v Wilson* [1982] AC 27. These problems were, to a degree, remedied by section 4 of the Administration of Justice Act 1982, which provided that the damages recoverable for the benefit of a deceased person in a survival action should not include "any damages for loss of income in respect of any period after that person's death". It remains the position, however, that a living claimant, who proves that he has been caused a personal injury by negligence, can include in the damages recovered compensation for lost earnings in the "lost years".

182. It seems to me that this right is a poor substitute for the right of the claimant's dependants to make full recovery for loss of dependency if and when the claimant dies prematurely. It would be much better if the claimant had no right to recover for such loss of earnings and the dependants' right to claim under section 1(1) of the Fatal Accidents Act 1976 subsisted despite the claimant's recovery of damages for his injury. I am not persuaded that this result could not be achieved by a purposive construction of that section.

183. Meanwhile, so long as the dependants' rights under the Fatal Accidents Act only arise where death is proved, *on balance of probability*, to have resulted from negligence, I do not see that there is a strong case for changing the law so as to enable a claimant to recover for *loss of the chance* of achieving earnings in the lost years.

184. I would like, now, to turn to the claim for lost years in the present case. *Pickett v British Rail Engineering*establishes that, where a claimant proves on balance of probability that an injury has been caused by negligence, and that such injury has shortened his life, he can recover damages in respect of the earnings lost in the "lost years". The lost years are calculated by comparing the age at which the claimant would have expected to die had he not been injured with the age at which he is expected to die in consequence of his injury. Statistics will normally be used to calculate the former and, save where death is imminent, the latter. The expected age at death will be the age to which the claimant will live on balance of probability. His chances of reaching a greater age will be less than 50%. His chances of reaching a lesser age will be more than 50%. In so far as calculations are based on statistics the exercise is, of course, a somewhat artificial one.

185. In the present case the claimant has not adopted a conventional manner of advancing his claim for lost years. Insofar as the statistical evidence established that his prospects of surviving had been reduced by Dr Scott's negligence, it should have been possible, by use of statistical evidence, to show that, on balance of probabilities, his life expectancy had been reduced by a specific number of years. It should, with the use of statistics, have been possible to calculate a single life expectancy for all in Professor Goldstone's model. A comparison of that life expectancy with Mr Gregg's life expectancy at the date of trial would have produced a specific number of lost years. On the premise (I believe a false premise) that these years were lost as a consequence of the spread of the cancer, damages should have included any earnings lost in those years.

186. Instead of advancing his claim in this conventional way, Mr Gregg has claimed for the reduction in his chance of surviving for ten years. He has then equated this with his chance of surviving to the age of 65. This has enabled him to claim a proportion of what he would have earned in the rest of his working life. The result may be more satisfactory to him than the result of the conventional approach, but no challenge has been made to the unconventional approach to claiming damages for earnings lost in the lost years.

187. Lord Hope of Craighead has concluded that Dr Scott's negligence caused the spread of Mr Gregg's cancer and that he can recover for the effect that the spread of his cancer had on his life expectancy. That conclusion is not, as a matter of principle, in any way at odds with the current law. It is, I think, the approach adopted by Latham LJ in the Court of Appeal. It involves starting the calculation by considering what Mr Gregg's prospects of surviving would have been had he been treated promptly and achieved complete remission, rather than suffered the spread of the cancer. On Professor Goldsone's model these prospects would have been, not 42 out of 100 but between 38 and 42 out of 55. It seems to me that Lord Hope of Craighead's approach will produce a different result to that of Lord Nicholls of Birkenhead, to which I now turn.

A claim that negligence has reduced the prospect of the cure of a fatal illness

188. Mr Gregg was suffering from a progressive disease which, if not treated, was almost certain to result in the spread of cancer leading to premature death. Delay in commencing the treatment in such a case tends to reduce the prospects of a cure, but whether, and to what extent it will do so in the individual case depends on factors unascertainable by the court. It is in these circumstances that Lord Nicholls of Birkenhead postulates that a claimant should recover damages for the reduction in his prospects of a cure, whether those prospects would have been more or less than 50% in the absence of the negligence. I can envisage the application of this approach once the adverse outcome, which the exercise of due care might have averted, has occurred. I find it less easy to see the basis on which the claim is established where the adverse outcome is still prospective. Does the claimant have to show that the negligence has had some adverse physical impact in order to establish his cause of action? If so, is liability for that adverse impact also to be assessed on a loss of a chance basis, rather than on balance of probability? I suspect that my noble and learned friend would answer yes to each question. If so, it is apparent that his approach will produce a different outcome from that of Lord Hope of Craighead.

189. There are no doubt cases where it is possible to adopt the simple approach of asking to what extent the negligent treatment has reduced the prospects of curing the patient. There are other cases, and this is one, where that simple question is almost impossible to answer. On the facts known to him at the time of the trial it was possible for the judge to lump together the five adverse events that Mr Gregg had experienced and the prospect of Mr Gregg dying of his cancer and to say that the delay in his treatment had increased the chances of all of these occurring by the same 20%. On the facts known today, that is no longer possible. The likelihood seems to be that Dr Scott's negligence has not prevented Mr Gregg's cure, but has made that cure more painful.

190. The complications of this case have persuaded me that it is not a suitable vehicle for introducing into the law of clinical negligence the right to recover damages for the loss of a chance of a cure. Awarding damages for the reduction of the prospect of a cure, when the long term result of treatment is still uncertain, is not a satisfactory exercise. Where medical treatment has resulted in an adverse outcome and negligence has increased the chance of that outcome, there may be a case for permitting a recovery of damages that is proportionate to the increase in the chance of the adverse outcome. That is not a case that has been made out on the present appeal. I would uphold the conventional approach to causation that was applied by Judge Inglis.

Conclusion

191. The judge concluded, on the data before him, that on balance of probabilities the delay in commencing Mr Gregg's treatment that was attributable to Dr Scott's negligence had not affected the course of his illness or his prospects of survival, which had never been as good as even. The data have now changed and Mr Gregg's prospects of survival, despite the delay in commencing his treatment, seem good. The delay may well, however, have meant that his path to what seems a likely cure has involved more intrusive treatment, and more pain, suffering and distress than would

have been experienced had treatment commenced promptly. Those acting for Mr Gregg have, however, not sought to re-open the facts but have relied on the facts as found by the judge. On those facts I agree with Lord Hoffmann and Baroness Hale that this appeal must be dismissed.

BARONESS HALE OF RICHMOND

My Lords,

192. The Court of Appeal were divided about this case, as are we. We have found it very difficult. Yet the vast majority of personal injury cases are not difficult. The evidence may be complicated, witnesses may be confused or unreliable and the expert opinions may be contradictory or incomprehensible. But eventually the trial judge sorts it all out and makes findings of fact, as did His Honour Judge Inglis in his conspicuously careful and detailed judgment in this case. Usually, it is then a matter of applying some well settled principles to the facts found. Well settled principles may be developed or modified to meet new situations and new problems: the decisions in *Fairchild v Glenhaven Funeral Services Ltd* [2003] 1 AC 32 and *Chester v Afshar* [2004] 3 WLR 927 are good examples. But those two cases were dealing with particular problems which could be remedied without altering the principles applicable to the great majority of personal injury cases which give rise to no real injustice or practical problem.

193. It is now hornbook law that damage is the gist of the action in negligence. The defendant owes a duty to take reasonable care of the claimant, the breach of which has caused the claimant actionable damage. The primary facts of what took place must be proved on the balance of probabilities. It must also be shown on the balance of probabilities that what the defendant negligently did or failed to do caused the claimant's damage. As Tony Weir (*Tort Law*, Oxford University Press, 2002, pp 74-75) puts it:

> "Classically all that need be shown is that it would *probably* have made a difference if the defendant had not been in breach of duty. Certainty is not required. The essential thing is to persuade the judge that the harm would probably have been avoided if the defendant had acted properly: it does not matter whether he is easily persuaded, because it is obvious, or is persuaded only with difficulty, because the matter is far from clear. The tendency to state the matter in terms of percentages is to be avoided. 'More likely than not' is a matter of persuasion, not of proof."

194. Once persuaded, however, the judge awards the claimant the full value of the damage that has been caused. As Tony Weir goes on to say:

> "The idea that recovery should be proportional to the cogency of the proof of causation is utterly unacceptable . . . "

195. If it is more likely than not that the defendant's carelessness caused me to lose a leg. I do not want my damages reduced to the extent that it is less than 100% certain that it did so. On the other hand, if it is more likely than not that the defendant's carelessness did *not* cause me to lose the leg, then the defendant does not want to have

to pay damages for the 20% or 30% chance that it did. A 'more likely than not' approach to causation suits both sides.

196. So it matters how the claimant, and the law, define the damage which is the gist of his action. In this case, the particulars of claim defined the damage flowing from the defendant's negligent failure to refer the claimant for specialist investigation in an entirely conventional way:

> "By reason of the Defendant's negligence, the Claimant has suffered pain and injury, loss and damage.
> PARTICULARS OF PAIN AND INJURY
> There was rapid spread and development of the Claimant's non-Hodgkin's lymphoma disease at the end of 1995. Had the Claimant been referred in or about November 1994, the malignancy would have been diagnosed and treatment commenced with the disease having progressed no further than stage 1. The treatment would have been by means of either radiotherapy or CHOP chemotherapy. There would have been a very high likelihood of cure. The Claimant would have been unlikely to develop any secondary recurrence, and would not have required the further treatment detailed above.
> The prospects of obtaining a cure by the time that treatment was in fact commenced were reduced to below 50% . . .
> PARTICULARS OF LOSS AND DAMAGE
> The Claimant refers to the provisional schedule of loss and damage served herewith . . . "

197. We have never seen that schedule. But we can deduce from the way in which the judge assessed the damages which he would have awarded, had the claimant proved the case as alleged in the Particulars of Claim, that it was a conventional claim for pain, suffering and loss of amenity; loss of earnings and costs of care; and loss of expectation of life. All of this would have been payable had he succeeded in proving on the balance of probabilities that 'but for' the defendant's failure to refer him for investigation in November 1994 he would have been 'cured'. The law's definition of cure for this purpose is a permanent cure, restoring him to a normal expectation of life. Only that would entitle him to damages for loss of earnings during what would otherwise have been that normal life span. One of the many complications in this case is that the definition of cure to which the medical evidence was directed was disease free survival ten years after the initial treatment. One can well understand why, both for clinical and research purposes, there has to be a working definition of this kind. But it has no particular relevance to the law. The law asks what difference the negligence has made to the claimant's life as a whole. But if the claimant *had* succeeded in proving that but for the defendant's negligence he would have been cured, neither claimant nor defendant would have suggested that his damages should be discounted to reflect the degree to which the judge was not certain that this was so.

198. But at trial the claimant could not prove that without the delay in referral he would probably have been 'cured' (even on the particular definition of 'cure' adopted by the experts in the case). It turned out that his was a type of cancer in which the chances of cure were never that good. So he tried to redefine the damage he had been

caused by the delay. On appeal, he put it in two different ways (he also had a third argument, based on *Fairchild*, but that has not been pursued before us).

The quantification approach

199. First, he said that the delay in diagnosis and treatment had caused physical injury, in the shape of the spread of the cancer in late 1995 before his therapy began. The losses he had suffered were simply consequential on this physical damage, just as loss of earnings and loss of life expectancy are consequential on a broken leg. He accepts that issues of causation of damage must be decided on the balance of probabilities. But he argues that issues of quantification of future losses are conventionally decided on the evaluation of risks and chances: see the well known words of Lord Diplock in *Mallet v McMonagle* [1970] AC 166, 176, cited by my noble and learned friend Lord Nicholls of Birkenhead at para 12 earlier. Consequential loss or reduction of the chance of a cure should be evaluated in the same way as, say, an increased risk of arthritis from a broken leg or epilepsy from a broken head.

200. This argument was accepted by Latham LJ in the Court of Appeal and remained the primary case submitted before us. I was for a long time attracted by it. But I have concluded that it will not do, at least on the facts of this case. Consequential loss still has to be consequential upon, that is caused by, the injury that has been caused by the defendant's negligence. If I am injured in a road accident, I still have to prove that any earnings I have lost are caused by that injury and not by, for example, my own decision to give up work and go round the world. The claimant accepts that causation still has to be shown on the balance of probabilities.

201. The judge did find (para 38) that, during that nine month period of delay from when treatment should have begun in around April 1995 to when it did begin in January 1996,

> ". . . the Claimant's condition 'upstaged' significantly, so that he was less likely to achieve complete remission and had a poorer prognosis as a result. Specifically his chances of avoiding radical high dose chemotherapy, his chances of avoiding a relapse, and his chances of ultimate survival were all reduced."

202. But this was all in terms of chances, not of probabilities. It was not a finding that the delay caused the upstaging. Then,

> "It is not possible to say that without the adverse prognostic factors caused by the delay the Claimant . . . would more probably than not have become a disease free survivor, or that he would have avoided relapse and relapse after high dose chemotherapy. He may have done, but it is not possible to say. *It is possible to say on the basis of Professor Goldstone's model that he would more probably than not have achieved complete remission with initial CHOP therapy and without high dose chemotherapy with stem cell harvesting."* (emphasis supplied)

203. Doctors do not cause the presenting disease. If they negligently fail to diagnose and treat it, it is not enough to show that a claimant's disease has got worse during the period of delay. It has to be shown that treating it earlier would have prevented that happening, at least for the time being. The italicised words do amount to a finding that the claimant would have achieved initial remission had he been treated earlier. But he would still have had to have the initial treatment and he would still, on the judge's later findings (see para 53), have given up work while it was going on. Had there been no later relapse, the judge thought that he should be taken as having begun work of some kind at the beginning of 1997, but there should be no loss of earnings claim before then. Similarly, there should be no claim for the costs of care before September 1996, anything before that not being attributable to the more radical treatment which became necessary (see para 59). Hence, the initial loss of earnings and cost of care were the result of the disease and the need to treat it, *not* the result of the negligence.

204. However, there was a further course of more radical treatment in August 1996, because the initial treatment had not been wholly effective. This appears to have been effective for a while. Then there was a relapse in early 1998, when the claimant underwent further radiotherapy which was intended only as palliative care because he was by then thought incurable, and a possible further relapse later that year, and further palliative chemotherapy. The prognosis at that stage was very poor. The effect upon the claimant's life has been devastating. But the judge could not find on the balance of probabilities that this would not all have happened to him anyway, with or without the initial delay in treatment (para 48):

> " . . . Although he might have suffered them at different times, Mr Gregg would on the balance of probabilities have gone through the same sequence of setbacks and treatments, and his outlook now is not shown to be different from what it would have been had there been no negligence."

205. This means that it cannot be said that the later pain, suffering and loss of amenity caused by the need for further treatment, and the associated loss of earnings and costs of care, were consequential on the injury caused by the negligence. Even if the initial treatment had led to remission, the need for further treatment and the relapses would have happened anyway because of the disease.

206. Even on conventional principles, this does not necessarily mean that the claimant is not entitled to anything at all. The defendant is liable for any *extra* pain, suffering, loss of amenity, financial loss and loss of expectation of life which may have resulted from the delay. If, without the delay, the claimant would have achieved a longer gap before more radical treatment became necessary, then he should be entitled to damages to reflect the acceleration in his suffering. If the pain and suffering he would have suffered anyway was made worse by the anguish of knowing that his disease could have been detected earlier, then he should be compensated for that.

207. There is also the distinct possibility that the delay reduced his life expectancy in the following sense. It is possible that had he been treated when he should have been treated, his median life expectancy then would have been x years, whereas given the delay in treatment his median life expectancy from then is x minus y. This

argument requires that the assessment of loss of life expectancy be based on median survival rates: ie those to be expected of half the relevant population at the particular time. If half the men with Mr Gregg's condition would have survived for x years or over with prompt treatment, and half would have survived for less than x years, then x is the median life expectancy of the group. If the same calculation of life expectancy from when he should have been treated is done in the light of the delay in treatment, the median life expectancy may have fallen. There might therefore be a modest claim in respect of the 'lost years'.

208. But none of this appears to have been explored before the judge. This was presumably because the focus before him had been on establishing that the claimant would otherwise have achieved a complete 'cure'. Ignoring for the moment the particular definition of cure adopted in the medical evidence, this would have entitled the claimant to far more in the way of loss of earnings and cost of care than would a claim for a modest reduction in median life expectancy.

The loss of a chance argument

209. The second, and more radical, way of redefining the claimant's damage is in terms of the loss of a chance. Put this way, his claim is not for the loss of an outcome, in this case the cure of his disease, which he would have enjoyed but for the negligence. His claim is for the reduced chance of achieving that outcome. As Jane Stapleton explained (by reference to the argument accepted by the Court of Appeal in *Hotson v East Berkshire Area Health Authority* [1987] AC 750) in "The Gist of Negligence" (1988) 104 LQR 389, 391-2:

> "Clearly, if the gist of the complaint were traditionally formulated in terms of contraction of necrosis, the plaintiff would fail to establish the requisite causal link on the balance of probability. The novelty of the case was that the plaintiff attempted to circumvent this result by choosing to formulate the gist of his action, not in terms of the necrosis outcome, but in terms of the lost chance of avoiding that outcome. In other words, although the plaintiff fails to establish causation on the balance of probabilities to one formulation of the damage forming the gist, he seeks to succeed in doing so to an alternative formulation based on loss of a chance. Importantly, the *Hotson* argument retains the traditional form of the causation test . . ."

210. In that case, the claimant had actually suffered the adverse outcome, avascular necrosis. The risk of suffering that outcome as a result of falling from the tree was 75%. The defendant's negligent failure to detect the injury to his hip took away the remaining 25% chance of avoiding it. Clearly he could not prove that the negligence had caused the outcome. It was more likely than not that it had made no difference. But might he have proved that it was more likely than not that the negligence had reduced his chance of avoiding that outcome?

211. The House of Lords treated this as a case in which the die was already cast by the time the claimant got to the hospital (or at least the claimant could not prove otherwise). The defendant had not even caused the loss of the chance of saving the situation, because by the time the claimant got to them there was no chance. The coin had already been tossed, and had come down heads or tails. But there must be many

cases in which that is not so. The coin is in the air. The claimant does have a chance of a favourable outcome which chance is wiped out or significantly reduced by the negligence. The coin is whipped out of the air before it has been able to land.

212. This is, therefore, a new case, not covered precisely by previous authority. The appellant himself describes his argument as the 'policy approach'. He recognises that it is a question of legal policy whether the law should be developed as he argues it should be. The wide version of the argument would allow recovery for any reduction in the chance of a better physical outcome, or any increase in the chance of an adverse physical outcome, even if this cannot be linked to any physiological changes caused by the defendant. A defendant who has negligently increased the risk that the claimant will suffer harm in future (for example from exposure to asbestos or cigarette smoke) would be liable even though no harm had yet been suffered. This would be difficult to reconcile with our once and for all approach to establishing liability and assessing damage. Unless damages were limited to a modest sum for anxiety and distress about the future, sensible quantification would have to 'wait and see'. The narrower version of the argument would require that there be some physiological change caused by the defendant's negligence, bringing with it a reduced prospect of a favourable outcome.

213. The attractions of adopting this reformulation of the gist of the action are many (see, for example, the discussion by Joseph H King, "Causation, Valuation, and Chance in Personal Injury Torts Involving Preexisting Conditions and Future Consequences" (1981) 90 Yale LJ 1353). First, the conventional approach to causation is, in theory at least, retained. The claimant still has to prove that it is more likely than not that the negligence led to the damage. But the damage is no longer defined in terms of the outcome - saving the leg or achieving disease free survival. It is defined in terms of the loss or diminution of the chance of saving the leg or achieving disease free survival.

214. Against that, although the conventional approach to proof of causation may be retained in theory, in practice it will be far from straightforward to apply. It may be, as my noble and learned friend Lord Phillips of Worth Matravers has demonstrated on the facts of this case, difficult to show that the reduction in the prospects of survival is caused by the delay in treatment rather than the underlying disease. On the other hand, once a breach of duty has been shown, the recent decision of the New South Wales Court of Appeal in *Rufo v Hosking* [2004] NSWCA 391 illustrates how easy it may be to conclude that this has led to a reduction in the patient's prospects of a favourable outcome. A specialist paediatrician treating a patient with lupus had changed from one corticosteroid to another and had failed to introduce a steroid sparer when he should have done. The patient suffered microfractures in her spine. It could not be shown that she would not have suffered these in any event. The negligent treatment had not caused the fractures. But Campbell AJA, giving the leading judgment in the Court of Appeal, held (at para 405) that

> "adopting a robust and pragmatic approach to the primary facts of this case . . . it seems to me that more probably than not the excess of corticosteroid consumed after 10 June 1992 in the context of the osteoporotic and vulnerable state of the appellant's spine caused the loss of a chance that the appellant would have suffered less spinal damage than she in fact did."

215. This conclusion comes after many paragraphs of dense and careful analysis of the evidence before the trial judge. But in the end the appeal is to common sense. And common sense will often suggest that the chances of a better outcome would have been better if the doctor had done what he should have done: for why else should he have done it but to improve the patient's chances? Reformulating the damage in this way could lead to some liability in almost every case.

216. Second, however, many would argue that this is a good thing. One of the objects of the law of negligence is to maintain proper standards, in the workplace, on the roads, in professional conduct, or whatever. If an employer, or a driver, or a professional person can be shown to have taken less care than he should have taken, then he should have to pay damages of some sort. As Lord Hope of Craighead said in *Chester v Afshar*, para 87, "The function of the law is to enable rights to be vindicated and to provide remedies when duties have been breached." In a case such as this, if there is only ever a less than evens chance of a cure (or avoiding an adverse outcome) what incentive is there for the doctor to take proper care of his patient?

217. But of course doctors and other health care professionals are not solely, or even mainly, motivated by the fear of adverse legal consequences. They are motivated by their natural desire and their professional duty to do their best for their patients. Tort law is not criminal law. The criminal law is there to punish and deter those who do not behave as they should. Tort law is there to compensate those who have been wronged. Some wrongs are actionable whether or not the claimant has been damaged. But damage is the gist of negligence. So it can never be enough to show that the defendant has been negligent. The question is still whether his negligence has caused actionable damage. There was no doubt about the damage in *Chester v Afshar*; the only question was whether the doctor who had failed to warn the patient of a small risk of serious harm should have to pay for the consequences when that very risk eventuated. In this case we are back to square one: what is actionable damage?

218. Third, it can be argued that some kinds of negligence do result in liability for loss of a chance. It has long been established that a solicitor whose negligence deprives the client of a viable claim is liable for damages even though the chances of succeeding in the claim were never better than evens: see *Kitchen v Royal Air Force Association*[1958] 1 WLR 563. The court simply asks what his claim was worth, assesses his chances of success, and discounts the full value by reference to the degree to which those chances were less than 100%. So why should my solicitor be liable for negligently depriving me of the chance of winning my action, even if I never had a better than evens chance of success, when my doctor is not liable for negligently depriving me of the chance of getting better, even if I never had a better than evens chance of getting better? Is this another example of the law being kinder to the medical profession than to other professionals?

219. One counter-argument is that, in this as in many other respects, there is a real difference between personal injury and financial loss. As Tony Weir (at p 76) puts it:

> " . . . where the claimant is suing in respect of personal injury or property damage, he must persuade the judge that that injury or damage was probably due to the defendant's tort, whereas in cases of financial harm it is enough to show that the claimant had a chance of gain which the defendant has probably

caused him to lose. There is nothing irrational in this, unless one supposes it is sensible to speak of 'loss of a chance' without saying what the chance is of. Losing a chance of gain is a loss like the loss of the gain itself, alike in quality, just less in quantity: losing a chance of not losing a leg is not at all the same kind of thing as losing the leg."

220. It is unfashionable these days to distinguish between financial loss and personal injury. Losing the money one has may not be so different from losing the leg one has. But many claims for financial loss do not relate to the money one has but to the money one expected to have - a prospective financial gain. There is not much difference between the money one expected to have and the money one expected to have a chance of having: it is all money. There is a difference between the leg one ought to have and the chance of keeping a leg which one ought to have. There is perhaps an even greater difference between the disease free state one ought to have and the chance of having a disease free state which one ought to have. (A further answer may lie in the subtle distinction between deterministic events in the natural world and indeterministic events involving the unfathomable actions of human agents, discussed by Helen Reece in "Losses of Chances in the Law" (1996) 59 MLR 188.)

221. Fourth, it can be argued that an all or nothing approach to outcome based losses is unjust. If it is shown on the balance of probabilities that my doctor caused or failed to prevent my injury or disease, he has to pay 100% of what that injury or uncured disease is worth. But, as Joseph H King argues at (1981) 90 Yale LJ 1353, 1387,

> "by compensating the 95% chance as though it were 100%, courts overcompensate the plaintiff. Both types of chance should be valued in a way that reflects their probability of occurrence. Such an approach would also promote a more accurate loss allocation."

222. The logic of this argument, however, is that personal injury law should transform itself. It should never be about outcomes but only about chances. It seems to me that this is the real problem we face in this case. How can the two live together?

223. Until now, the gist of the action for personal injuries has been damage to the person. My negligence probably caused the loss of your leg: I pay you the full value of the loss of the leg (say £100,000). My negligence probably did not cause the loss of your leg. I do not pay you anything. Compare the loss of a chance approach: my negligence probably caused a reduction in the chance of your keeping that leg: I pay you the value of the loss of your leg, discounted by the chance that it would have happened anyway. If the chance of saving the leg was very good, say 90%, the claimant still gets only 90% of his damages, say £90,000. But if the chance of saving the leg was comparatively poor, say 20%, the claimant still gets £20,000. So the claimant ends up with less than full compensation even though his chances of a more favourable outcome were good. And the defendant ends up paying substantial sums even though the *outcome* is one for which by definition he cannot be shown to be responsible.

224. Almost any claim for loss of an outcome could be reformulated as a claim for loss of a chance of that outcome. The implications of retaining them both as

alternatives would be substantial. That is, the claimant still has the prospect of 100% recovery if he can show that it is more likely than not that the doctor's negligence caused the adverse outcome. But if he cannot show that, he also has the prospect of lesser recovery for loss of a chance. If (for the reasons given earlier) it would in practice always be tempting to conclude that the doctor's negligence had affected his chances to some extent, the claimant would almost always get something. It would be a 'heads you lose everything, tails I win something' situation. But why should the defendant not also be able to redefine the gist of the action if it suits him better?

225. The appellant in this case accepts that the proportionate recovery effect must cut both ways. If the claim is characterised as loss of a chance, those with a better than evens chance would still only get a proportion of the full value of their claim. But I do not think that he accepts that the same would apply in cases where the claim is characterised as loss of an outcome. In that case there is no basis for calculating the odds. If the two are alternatives available in every case, the defendant will almost always be liable for something. He will have lost the benefit of the 50% chance that causation cannot be proved. But if the two approaches cannot sensibly live together, the claimants who currently obtain full recovery on an adverse outcome basis might in future only achieve a proportionate recovery. This would surely be a case of two steps forward, three steps back for the great majority of straightforward personal injury cases. In either event, the expert evidence would have to be far more complex than it is at present. Negotiations and trials would be a great deal more difficult. Recovery would be much less predictable both for claimants and for defendants' liability insurers. There is no reason in principle why the change in approach should be limited to medical negligence. Whether or not the policy choice is between retaining the present definition of personal injury in outcome terms and redefining it in loss of opportunity terms, introducing the latter would cause far more problems in the general run of personal injury claims than the policy benefits are worth.

226. Much of the discussion in the cases and literature has centred round cases where the adverse outcome has already happened. The patient has lost his leg. Did the doctor's negligence cause him to lose the leg? If not, did it reduce the chances of saving the leg? But in this case the most serious of the adverse outcomes has not yet happened, and (it is to be hoped) may never happen. The approach to causation should be the same for both past and future events. What, if anything, has the doctor's negligence caused in this case? We certainly do not know whether it has caused this outcome, because happily Mr Gregg has survived each of the significant milestones along the way. Can we even say that it reduced the chances of a successful outcome, given that Mr Gregg has turned out to be one of the successful minority at each milestone? This is quite different from the situation in *Hotson*, where the avascular necrosis had already happened, or in *Rufo v Hosking*, where the fractures had already happened. Mr Gregg faced a risk of an adverse outcome which happily has not so far materialised, serious though the effects of his illness, treatment and prognosis have been. The complexities of attempting to introduce liability for the loss of a chance of a more favourable outcome in personal injury claims have driven me, not without regret, to conclude that it should not be done.

227. As already indicated (paras 206 and 207 earlier) the claimant would have been entitled to damages for any adverse outcomes which *were* caused by the doctor's negligence. But the possibilities there canvassed were not canvassed in evidence or

argument before the Judge, nor have we been invited to remit the case for further findings. With some regret, therefore, I agree that this appeal should be dismissed.