



ARTIFICIAL INTELLIGENCE AND RADIOLOGY

- Advances in technology
- Use of new techniques
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The Legal Test

Duty of care

Breach of that duty

Causing damage

Civil – balance of probability test.

- (1) **The Bolam Test¹ - A doctor was not negligent if he acted in accordance with a practice accepted as proper by a responsible (reasonable) body of medical men skilled in that art merely because there was a body of opinion that took a contrary view).**
- (2) For negligence to be proved, the doctor had to **fall below a standard of practice recognised as proper by every responsible body of opinion at the time of the alleged negligence.** (2) A plaintiff seeking to prove negligence had to show not only that the non-disclosure was negligent but also that the plaintiff would not have consented to the treatment if he had been warned of the risks.
- (3) Bolitho case. The use of these adjectives -responsible, reasonable and respectable--all show that the court has to be satisfied that the exponents of the body of opinion relied upon can demonstrate that such **opinion has a logical basis.**
- (4) The Judge decides the case.

Medical Knowledge



- (5) Sachs LJ “The court must be vigilant to see whether the reasons given for putting a patient at risk are valid in the light of any well-known advance in medical knowledge, or whether they stem from a residual adherence to out-of-date ideas.”

Cases

- (6) KEITH WILLIAMS v CWM TAF LOCAL HEALTH BOARD (2018)
A judge had been entitled to reject a claim that a multi-disciplinary medical team had been negligent in deciding to perform a sympathectomy on a patient suffering from critical limb ischemia, rather than first conducting an angiogram. Their decision had met the standard of a responsible body of medical opinion, and there was no expert evidence to undermine that body of opinion.
- (7) JULIE ELIZABETH BAYLEY v GEORGE ELIOT HOSPITAL NHS TRUST (2017)
Where an allegation of negligence was made on the basis that doctors failed to inform a patient about all reasonable alternative treatments for her condition, the court had to consider the state of medical knowledge about the treatment at the time. Factors relevant to the consideration might be the availability of the treatment, the extent to which it was known about, and the lack of published journal articles in the UK about research into it.
- (8) TINA MORRIS v (1) UNIVERSITY HOSPITAL BIRMINGHAM NHS FOUNDATION TRUST (2) ROBERT SCOTT (2009). An NHS trust was not liable when a general radiologist had failed to detect a rare abnormality of a lachrymal gland on a CT scan as, on the evidence, it was unlikely that a reasonably competent general radiologist exercising reasonable care would have detected it.
- (9) R v Croydon Health Authority 1997.
In an appeal from part of the decision of Astill J of 15 May 1997, in respect of an award of damages and the plaintiff's costs. The respondent ('R') trained as a nurse for the mentally sub-normal and in October 1988 applied for a job with the appellant health authority as a community nurse. Before deciding whether or not to employ her, the appellant required a medical examination which included a chest x-ray which was considered by a radiologist. The radiologist failed to report the presence of a significant abnormality. This was subsequently diagnosed as primary pulmonary hypertension ('PPH') which limits life expectancy and if a sufferer becomes pregnant, carries a risk of sudden death. After being passed fit for employment, R commenced employment with the appellant, but fell pregnant four months later. PPH was subsequently diagnosed. The baby was born by caesarean section in good health. R underwent a hysterectomy and catheterisation six months later. R developed problems bonding with the baby and suffered reactive depression HELD: (1) The appellant's submission with regard to loss was correct. R may have been able to claim for loss of opportunity to evaluate properly the arguments for and against pregnancy, subject to the question of remoteness of damage and scope of duty. That would hardly be a significant head of damage when the pregnancy was negotiated without disaster and she gave birth to a healthy baby which was much loved. (2) However, R's domestic life fell outside the scope of the radiologist's duty and therefore the claim for damages for the pregnancy per se and the cost of upbringing the child failed. (3) The award of damages would be restricted to general damages for pain and suffering for the particular complications of pregnancy attributable to PPH, plus compensation for any heart catheterisation which would have been avoided and any complications of the hysterectomy which would probably not have occurred if PPH had been diagnosed. Damages would also be awarded for the whole of the reactive depression.
- (10) A v Southend Health Authority and Bloomsbury Islington Health Authority 1997
Hospital Claims in negligence by male plaintiff aged 28 against the health authorities responsible for the Southend General Hospital and the University College Hospital



('UCH') for failure to correctly diagnose and treat the plaintiff's isolated plexiform neurofibroma of the mediastinum tumour. It was contended that the second defendants were responsible for the actions of a physician who saw the plaintiff on referral in July 1986 and that the first defendant authority had, having adopted a wait and see policy towards the tumour, failed to note that it gradually increased in size, and so had failed to operate before it became malignant. The defendant argued that comparisons with previous X-rays had been made in accordance with standard practice and that there had been no significant increase in size nor manifestation of symptoms until September 1988. The claim against the second defendant was withdrawn in plaintiff counsel's closing speech.

HELD: (1) The plaintiff had an extremely rare medical problem. Given the diffuse involvement of the nerves affected by a plexiform neurofibroma curative surgery by definition nearly always results in nerve damage and secondary neurological problems. Conversely despite the diffuse histological involvement by tumour, the nerves themselves often continue to function normally for many years, with the only symptoms being cosmetic if in an exposed area of the body. (2) The standard of care required was that of a reasonably competent radiologist/radiotherapist at the time. (3) The defendants were not to be held negligent if they had adopted a practice accepted as reasonable by a responsible body of practitioners skilled in the relevant field. (4) Recommended procedure in relation to asymptomatic patients with such tumours, which had not shown a significant increase in size after a period of review, was continued observation with close medical surveillance. (5) The condition had been correctly identified by the consultant physician at UCH, and his advice was highly competent. The allegations against him and the UCH authorities had been correctly withdrawn. (6) There was no negligence in failing to give specific instructions to the radiologists, and if the changes on the X-rays had been identified in November 1987 or March 1988 the result would have been no different. The tumour was probably still benign in March 1988. (6) Small radiological changes were of negligible significance in view of the total absence of symptoms. In these circumstances a continuation of the policy of observation was probably a reasonable one. The practice at the first defendants hospital gave rise to considerable reservations, but was not on balance Wednesbury unreasonable. It was therefore not negligent and the claim must fail. Judgment for the defendants.



NOTES

- (11) McNair J. in **Bolam v. Friern Hospital Management Committee [1957] 1 W.L.R. 583, 587**: In the Bolam case itself, McNair J. stated [1957] 1 W.L.R. 583, 587, that the defendant had to have acted in accordance with the practice accepted as proper by a "responsible body of medical men." Later, at p. 588, he referred to "a standard of practice recognised as proper by a competent reasonable body of opinion.
- (12) **Bolitho v. City and Hackney Health Authority [1997] UKHL 46; [1998] AC 232; [1997] 4 All ER 771; [1997] 3 WLR 1151 (13th November 1997). HOUSE OF LORDS** Lord Browne-Wilkinson Lord Slynn of Hadley Lord Nolan Lord Hoffmann Lord Clyde. In Bolitho Lord Browne-Wilkinson expressly picks up on McNair J's reference to a "reasonable" body of opinion and reference to the existence of a logical basis - see pages 241 to 242.
- (13) Maynard's case, Lord Scarman refers to a "respectable" body of professional opinion. The use of these adjectives -responsible, reasonable and respectable--all show that the court has to be satisfied that the exponents of the body of opinion relied upon can demonstrate that such opinion has a logical basis. *Maynard v. West Midlands Regional Health Authority* [1984] 1 W.L.R. 634,

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