

37. It is understandable that the clinicians found this death sudden and difficult to explain. It is often very difficult for clinicians to identify a diffuse axonal injury as it does not show up on the scans. There has been a considerable increase in the knowledge about this type of injury since 1997. Techniques have been developed for identifying such a brain injury within about 6 hours of the injury. It was easier to identify in this case as Mr Hamill survived for 11 days.
38. There is no specific treatment for a diffuse axonal injury. The prospects of recovery depend on where the injury is and its severity. Some people may recover completely, others may be left in a vegetative state or they may be left with some residual brain damage. An injury in the brainstem is the most serious because that is where the vital centres of the brain are located which control essential functions such as breathing. There is usually a poor outcome when the brainstem is affected.
39. In all the circumstances, it is very unlikely that any first aid or different medical treatment could have had an effect on this injury.
40. I did consider whether there was evidence of hypoxic damage but I excluded this as a cause of death. Hypoxic brain injury is often associated with a very swollen or oedematous brain but this did not appear to be the finding from the CT scans taken. There was no neuropathological evidence of the nature which one would expect to find if the brain had been deprived of oxygen for a significant period such as laminar necrosis of the cortex. If there had been significant starvation of oxygen at the time of the injury one would expect to see clear changes in the brain develop after a week.
41. It is possible for axonal injury to be caused by hypoxia where there is no physical trauma but there was insufficient evidence of hypoxia in this case to establish it as the cause of this axonal injury or death. In terms of the hypoxic brain damage, I have been referred to Dr Reid's report at page 7 which is contained at page 72532, that there are some changes. It states: