

29. The reasons I ruled out NMS include the absence of damage to the kidneys, where NMS would have caused casts of myoglobin but none were present. I did special stains on the kidney to look for muscle damage but there was none. There were no casts identified within the tubules. There was an absence of damage to the liver, with no necrosis evident. There was no rigidity in the muscles which is a notable symptom of NMS. Neither were there the changes to the brain which would normally be associated with NMS such as necrosis, particularly in the cerebellum. We specifically looked for all of the changes that you get in this syndrome. It was in my view a possibility and one that we needed to consider. All of the typical markers that are associated with the syndrome were not found and that is why I excluded it as being a cause of death.
30. The injury did cause damage to the hypothalamus which is the part of the brain which controls the body temperature and this may explain the raised temperature in this case, albeit that raised temperature is a common symptom generally associated with head injuries in any event. The damage to the hypothalamus is recorded in the histology section of Dr Herron's report which is contained at page 31395 where it states, "*Examination shows no evidence of haemorrhagic necrosis. There is however axonal damage in the hypothalamic region.*"
31. As the chlorpromazine was given on the 1 and 2 May 1997, a week before the patient's death, I would have expected any adverse reaction at that stage. There is not a cumulative effect to the drug, the half life of the drug is such that it breaks down and that is why it is given fairly regularly. It is not as though the level of the drug is building up throughout the week. It tends to be an idiosyncratic reaction, in other words, you don't know someone is going to get NMS. Further, I note that no mechanism for death through NMS has been provided, and the usual mechanisms such as acute degeneration of the liver, kidney failure or necrosis in the cerebellum were not present.
32. I did not include consideration of NMS in my autopsy report as what I tend to do is put my opinion in the autopsy report. The possibility of NMS was not