testing. The latter process required a lot of training and experience. None of these measures were implemented in any effective manner during the time that Dr Theron served at Pollsmoor.

[88.] Dr Theron testified that screening could not be performed properly by an inmate. It would even be difficult for a trained nurse to perform the screening process adequately, because on average 60 persons would return from the courts between 5 and 6 pm, which meant that the work had to be performed in an hour or two. Dr Theron recommended the mass screening of prisoners from time to time, because it had been used in the past as a means of identifying people with active TB. One of the ways in which a mass screening could be performed, was by using a portable X-Ray machine. Such screening never occurred, because there were problems in obtaining the particular X-Ray machines and because the objection was that one would only pick up some of the TB cases and not all.

[89.] When Dr Theron originally started working at the prison, a doctor screened prisoners en masse upon their admission. The doctor would go from one prisoner to the next, listening to chest sounds with a stethoscope and would screen a large number of prisoners in this manner in a very short time. It was, however, only possible to do such a screening whilst the military form of discipline was applied in the prison. Once the democratic process was adopted, such screening could no longer be conducted. Whereas it was

notionally possible for a doctor to line up every inmate in E-section to check him for TB, such procedure was not very efficient, would be exhausting for the doctor and would require good nursing and clerical teams as back-up. If an organised system had been in place and sufficient numbers of nurses and security staff had been available it would, however, have been possible to screen all of the inmates in the prison. One could have called prisoners out in small groups, could have identified each one and could then have checked for TB, much as one would do in triage. With adequate education, it would have been possible to produce a team of qualified people who were able to identify the majority of TB cases in the prison, which would have facilitated the gaining of control over the spread of the disease.

[90.] Dr Theron stated that if the factors which he had highlighted had been addressed in a consistent and effective manner, the incidence of TB as well as the risk of contracting TB in the prison would have been greatly reduced. The health system at Pollsmoor was, however, not efficient. The doctors as well as the nurses struggled to manage the situation which Dr Theron described as 'a nightmare that none of us could wake up' from.

[91.] Dr Theron conducted a clinical examination of the plaintiff on 17 November 2009 to establish whether or not the plaintiff had suffered trauma as a result of his arrest and incarceration which contributed to his vulnerability and subsequent TB infection, to investigate his present health and to evaluate his

future health prospects relative to his incarceration experience. He found that the plaintiff still suffers from cough with phlegm and wheeze, which signs suggested an ongoing disability related to the original TB.

[92.] According to Dr Theron, the plaintiff did not fit the TB patient profile that he had developed over the years of his practice. He explained that every medical condition that a doctor encounters in practice, including TB, has a set of guidelines as to the probability of that condition. So, for example, males in their mid 40's who complained of swelling in the inguinal area (the area next to the scrotum), were likely to have an inguinal hernia. He could identify persons with a susceptibility for TB at a distance, inasmuch as certain clinical features would suggest that a person either had TB or was in danger of developing the disease. Specific features that he would watch out for were persons who, by their bodily habitus, appeared to be broken down in terms of their ability to cope and persons who appeared to be thin, underweight and undernourished. He had recently seen a patient who had been referred by the High Court and at a distance of 5 metres identified him as probably having TB. A subsequent X-Ray confirmed that the patient suffered from the disease. His profiling of potential TB patients was nothing other than a clinical assessment and evaluation of a patient in terms of his risk for developing TB, just as he would, for example, perform a clinical assessment of patients in terms of their risk of developing heart conditions or diabetes, in the course of making a differentiated diagnosis.

[93.] Dr Theron never saw the plaintiff before he became ill with TB, but his retrospective examination showed that the plaintiff did not fit the TB patient profile. The plaintiff appeared to have been relatively robust and well nourished. Dr Theron was of the opinion that the plaintiff would not easily have become ill with TB in the outside world, but that the situation in prison made him vulnerable to TB. This assessment was based on his experience as well as his clinical know-how and expertise.

[94.] Dr Theron agreed with Prof Van Helden in so far as the latter's report related to scientific descriptions and standard medical opinion relating to the manner in which TB is contracted and spread. Dr Theron also agreed that infection with the TB bacterium in the Western Cape commonly occurs during the first two years of life. Such infection is referred to as the primary infection/focus or the Ghon focus (named after a pathologist, Anton Ghon). He parted company with Prof Van Helden in so far as the professor was of the opinion that conditions in the prison had been ideal. In this regard, he pointed out that Prof Van Helden himself made it clear that poverty and similar socio-economic stress could cause people's immune systems to break down so that disease can take hold. Dr Theron also differed from Prof Van Helden inasmuch as Dr Theron was of the view that re-activation of sub-clinical TB which had remained dormant in the body, is less likely than re-infection, i.e. a fresh TB infection. Most human beings, however, have an innate or basic immunity against TB, as is alluded to in Prof Van Helden's work. Both re-

activation and re-infection would require a break-down of the patient's immune system before active disease would result and in Dr Theron's opinion, the environment within which the plaintiff found himself in the maximum security prison, was a factor in him becoming ill with TB, inasmuch as the concentration of TB in the environment and the virulence of the bacteria were important factors in the development of the disease.

[95.] Prof Van Helden was of the view that the plaintiff's exposure to TB cases in prison was probably very low or non-existent. As is evident from his report, he came to such conclusion on the basis of information provided to him by officials of the DCS to the effect that the plaintiff had been detained in a single cell for most of the time, that the persons with whom he shared such cell did not appear to have active TB at any stage and that the plaintiff had little contact with other inmates. Dr Theron held an opposing view. He testified that from his experience in walking the corridors of the prison, there were large numbers of prisoners moving about. One needs only one person with active TB to spread the bacteria and it was likely that one would be exposed to active TB in the course of moving about in the prison.

[96.] Dr Theron emphasised that the risk of persons being infected with TB bacteria increased in a closed environment, such as a prison cell, where there was an absence of fresh air and sunlight. Bacteria coughed out in a cell where the air was stagnant and polluted could drift around for hours, infecting and

reinfecting every person exposed thereto. Moreover, in prison people live right next to each other and disease is accordingly easily spread. For these reasons, he differed from Prof Van Helden's view that individuals exposed to active TB bacteria in open society experienced the same risk as those who were incarcerated. Dr Theron held the view that although the TB guidelines did not require isolation, sound clinical principles dictated that prisoners who were ill with TB be isolated at the onset of the disease and during the infectious stage, because the closed environment within which prisoners found themselves, coupled with the fact that they lived in close proximity to each other, facilitated the spread of the disease.

[97.] Dr Theron also took issue with Prof Van Helden's opinion that active TB cases were moved to a separate facility which removed the risk of infection for other inmates. Dr Theron's evidence in this regard was that prisoners suffering from active TB were not effectively isolated from others. In the hospital section, for example, there were cells which had been earmarked for isolation purposes, but if the solid metal door was shut, the inmate in such cell was unable to have normal contact with others and did not have adequate ventilation. In practice therefore, the solid metal doors were not normally shut and prisoners in those cells were separated from others only by a barred gate. No formal barrier was in place to prevent the spread of TB bacteria. Dr Theron also stated that he never saw any single cells being used for the purpose of isolating inmates, but he could not categorically state that this was not done.

[98.] Prof van Helden, in his expert summary, stated that it was not possible to determine scientifically whether the plaintiff's TB episode resulted from reactivation or reinfection. To the extent that Prof Van Helden implied that the plaintiff's detention in prison had nothing to do with him becoming ill with TB and that the plaintiff's TB just happened to occur while he was incarcerated, Dr Theron held a different view. He referred to a letter published on the internet by the American Röntgen Ray Society in which it was pointed out that recent molecular epidemiologic studies provided definitive evidence that reinfection contributes substantially to the TB disease burden. Studies using a special fingerprinting technique established that most infections causing active TB in adults from TB-endemic areas, represent currently circulating strains that were recently transmitted. Studies have also shown that more than 50% of recurrent disease occurring in endemic settings results from reinfection. Dr Theron was of the opinion that the plaintiff's illness with TB resulted from reinfection, rather than reactivation of an earlier infection. In his view, it does not matter much, however, whether the plaintiff's illness with TB resulted from reactivation or reinfection, inasmuch as reactivation normally only occurred in circumstances where a person's immune system was severely compromised. Environmental stressors or pressures could cause the immune system to break down and, in his view, the peculiar circumstances of the maximum security prison caused the plaintiff's immune system to become compromised, so that he succumbed to the disease.

[99.] Dr Theron also differed from Prof Van Helden's view that one could not prevent TB. Dr Theron stated that one could prevent TB by applying appropriate measures such as, for example, screening and the provision of proper ventilation. As has been alluded to above, the screening of individuals would have identified those who were vulnerable to TB and they could then have been assisted in becoming less susceptible to the development of the disease. In this regard, Dr Theron pointed out that Prof Van Helden is not a medical doctor and that his approach is accordingly less practical. Medical doctors have, for centuries, identified people who were at risk and have adopted appropriate measures to minimise such risk.

The Evidence of Dr Craven

[100.] Dr Craven worked at the maximum security prison from 1988 to September 2003. He was the doctor responsible for the primary medical care of all of the inmates at such institution.

[101.] According to Dr Craven, disease management was well run when he was first appointed to the prison. There was an adequate number of well trained nurses and he was confident that his requests would be carried out. In the late 1990's, however, the system slowly started to deteriorate. The deterioration of the system was an important event, because disease management is dependant upon team work and in a prison setting the team

includes nurses as well as warders.

[102.] Eventually, the deterioration in the management system reached such a stage that Dr Craven started to keep a daily contemporaneous record of management failures or 'derelictions of duty', as he called it. These derelictions of duty included, for example, prisoners not being re-paraded (i.e. brought for follow-up consultation) on due date, specimens not being collected promptly, laboratory reports not being presented to him promptly with the patient's folder so that he could take action, TB treatment not being supervised and recorded, etcetera. Dr Craven made notes of these failures at the time when it came to his attention in the ordinary course of his duties. The notes were made in duplicate and he would leave the top copy at the prison each day in the hope that management would take appropriate action and in order to provide the prison governor (the head of the maximum security prison, Mr Jansen) with evidence to motivate for more staff and fewer prisoners. When he went home, he transferred the notes he had made to his computer and for purposes of the trial he extracted all of the information relevant to the management of TB. This extract was attached to the summary of his evidence, included entries regarding 947 prisoners, ran to 44 pages and constituted a record of deficiencies in the management of certain TB patients and the management of TB in the prison.

[103.] Under cross-examination, Dr Craven acknowledged that he had not seen the relevant files since leaving his position at the prison, that he had no independent recollection of individual cases and that the context within which the notes were made, were of relevance. His notes were somewhat difficult to interpret when he was in the witness box.

[104.] Dr Craven attributed the large number of 'derelictions of duty' which he recorded to the fact that there was a shortage of staff among warders as well as nurses. There were simply not sufficient warders to bring persons to the hospital section and there were too few nurses to perform the tasks that were required of them.

[105.] Dr Craven was employed to work at the maximum security prison for 5 hours per day from Mondays to Fridays. He admitted that he sometimes left early for private commitments and testified that he had in each such case given advance notice of the fact. He also sometimes left early when the noise at the hospital was such that he could not perform his job and became so irritable that he would become abusive. He explained that prisoners were frequently so noisy in the vicinity of the hospital that he could not hear a patient's chest or blood sounds, which impinged upon his ability to treat his patients. He admitted that he demanded absolute silence while he was seeing patients and stated that he was by no means unreasonable to expect silence, it had been the norm in the old, military

style, of management at the prison.

[106.] Typically, Dr Craven would start his day by attending to incoming correspondence such as, for example, laboratory reports and letters from prisoners, their solicitors or the courts. He would then attend to any prisoner who was paraded, i.e. brought from the section, processed by the nurses and brought to see him. The nurses would assess any prisoner who said that he wished to see the doctor or any prisoner whom they observed to be obviously injured or ill. As he understood the system, in theory a nurse was supposed to go to the appropriate section each morning to ask if anybody had medical problems and a nurse ought to have been available in the afternoons to assess incoming prisoners who came from the courts.

[107.] In the ordinary course of performing his duties, Dr Craven would make a note on the patient's file if he had to come back for a follow-up consultation. The nurse would have to work with the relevant warder to ensure that the patient was re-paraded on the appointed day. If Dr Craven wanted samples such as, for example, sputum or blood, to be sent to the laboratory, he would similarly make a note in the patient's file and the nurse would have to collect the specimen and send it off to the laboratory. The laboratory sent a runner to the prison on a daily basis to collect specimens and to deliver reports. It was accordingly reasonable to expect a report to be tabled within 2 days after the date upon which the report had been

prepared. It was important that reports be presented to him promptly so that he could take appropriate action at an appropriate time.

[108.] Once the sick parade had been completed, the prescriptions for medication which Dr Craven had prepared, would be sent to the pharmacy so that the medication could be issued. There was only one pharmacist who was responsible for all of the prisons at Pollsmoor, as well as some of the country prisons and this frequently resulted in the issuing of medication being delayed. Even if medication was issued on the same day, prisoners were locked up at 4 o' clock and sometimes the nurse had gone home by then so that prisoners only received the medicine the following day. Prisoners often complained that they never received the medication that had been prescribed.

[109.] Dr Craven testified that the management of TB is different to the management of other diseases such as, for example, pneumonia, because TB is a formidable infectious disease. The law requires that the Medical Officer of Health be notified and the National DOH has prescribed guidelines for the treatment of TB which require that the taking of every tablet be supervised. The patient must be watched while taking the medication, the person supervising must check the patient's mouth to make sure that the tablets have been swallowed and must then tick off the relevant box on the patient's treatment card. In the outside world, the supervision is not

normally required to be performed by a nurse. A family member, friend, neighbour or colleague acts as supervisor.

[110.] Dr Craven testified that the practice in the outside world is for somebody to visit the home of a newly diagnosed TB patient in order to test the other members of the household for TB. He did not know whether this was done in the maximum security prison, but he was aware of the fact that some prisoners were paraded after having been identified as possible TB patients by one of the nurses. On his visit to the maximum security prison during the course of the trial, he was shown so-called 'suspect registers' which contained details of persons who had been suspected of having TB and in respect of whom sputum tests were obtained. The registers that he saw, however, related to the time period subsequent to his employment at the prison.

[111.] Dr Craven corroborated the evidence of Dr Theron in regard to the manner in which TB is diagnosed. The first step in making a diagnosis, involves the taking of a history to determine what symptoms the patient has noticed. A clinical examination is then performed. Such examination consists of observing the patient to determine whether he is well nourished or emaciated and whether he is coughing. The patient's temperature would be taken and a physical examination would be conduced by, inter alia, percussion of the chest and by listening to the chest with a stethoscope to

ascertain whether air was moving in and out of the lungs on both sides equally. On percussion a normal chest sounds hollow and if there is solid material it sounds dull. If air flow is not equal on both sides, it is indicative of underlying pathology in the lung. After the physical examination an X-Ray may be taken and, if TB is suspected, two sputum samples are obtained which are sent for laboratory analysis and, if appropriate, culture. If a prisoner at the maximum security prison required an X-Ray, he would be sent to Victoria Hospital as soon as transport and guarding could be arranged.

[112.] Dr Craven testified that his decision whether or not to send an inmate for a chest X-Ray would depend on the clinical state of the patient. If he was not sure that the patient had TB after performing a clinical examination, he would wait until the sputum test result was obtained. If the clinical examination revealed signs of TB, he would send the patient for an X-Ray straight away. Likewise, the stage at which Dr Craven would prescribe medication would depend on the results of the clinical examination. If the clinical examination revealed strong evidence of TB, he would start treatment before the laboratory results came to hand. The decision would be made in each case in light of the patient's condition. Once a prisoner was diagnosed with TB and received his medication, he would be sent back to the section, because the isolation section in the prison hospital was usually chock-a-block. Under cross-examination Dr Craven did, however,

concede that TB patients, upon being diagnosed, were separated as far as was possible.

[113.] Dr Craven used to visit the sections in the maximum security prison as part of his public health inspections. He stated that there was severe overcrowding, to the extent that he would regularly see up to 4 prisoners in a cell designed for occupation by 1 person and up to 60 persons in a cell designed for occupation by 20. The cells had narrow slatted windows along one outside wall. The door to the cell was situate on the opposite side of the cell and had a solid steel door as well as a barred gate or grille. Once lock down occurred at approximately 16h00, the steel door was closed, so that there was no cross-ventilation until such time as the door was opened the following morning.

[114.] Chapter 2 of the standing orders provide for the minimum permissible cell area per prisoner in terms of floor space and air space. During the visit to the prison which was conducted by the plaintiff's legal advisors and experts, Dr Craven measured some of the cells where the plaintiff had been detained, more particularly a single cell, an overnight communal cell where prisoners were detained when returning from court and an ordinary communal cell. He then used those measurements to determine the number of prisoners which ought to be housed in those cells according to the standing orders. Dr Craven found that if one applied the formulae

provided in the standing orders, different results were obtained depending on whether one had regard to surface area or volume. The overnight cells yielded a maximum capacity of 17 when calculated with reference to surface area and 23 when calculated in terms of volume. A single cell which had been occupied by the plaintiff (as well as 2 other inmates) yielded a maximum of 1 inmate when calculated with reference to surface area and 2 inmates when calculated in terms of volume and a communal cell in the section yielded results of 12 and 16 respectively.

[115.] Dr Craven was referred to a letter under the hand of, inter alia, Mr Engelbrecht (the Area Manager at Pollsmoor), Mr Jansen (the head of the maximum security prison) and Mr Muller, which had been forwarded to the defendant and the Commissioner of Correctional Services by facsimile on 3 October 2003. The subject heading of the letter read: 'POLLSMOOR A HEALTH HAZARD FOR WESTERN CAPE'. The letter stated, inter alia, that the approved accommodation of the maximum security prison at 100% occupancy was 1619 prisoners, but that the lock-up total for the previous day was 3052 which constituted 189% occupation. Dr Craven confirmed that he had not personally verified these figures, but that they were consistent with his observations. Dr Craven testified that he had visited other prisons, such as Goodwood and a privatised prison at Bloemfontein. What had struck him about both of those, was the lack of overcrowding.

[116.] Dr Craven testified that application of the DOTS system was extremely important, because prisoners often did not want to take the TB medication. There were two main reasons for their reluctance to take the prescribed drugs. Firstly, nausea was a common side effect of the medication and secondly, prisoners frequently did not understand the need to take the medication. As far as they were concerned, they were not ill, they simply had a cough. Failure to take the medication for the prescribed period caused patients to suffer a relapse which, in turn, caused them to become infective again and, in addition, could lead to them developing MDR-TB which was extremely difficult to treat.

[117.] Dr Craven expected the administration of the TB medication in prison to be performed by a nurse. Indeed, he expected the nurse to issue the tablet, to give the patient a glass of water, to watch the patient swallow the tablets, to inspect the patient's mouth and then to tick off the box on the treatment card and on the hospital folder. Treatment also had to be recorded in a treatment register which was held in quadruplicate. The bottom copy was retained in the clinic and one copy was to be sent off to the Medical Officer of Health. In many cases, however, Dr Craven found that the documents which were supposed to have been forwarded to the Medical Officer of Health were still in the register. The DOTS system was also not applied consistently. So, for example, treatment cards were sometimes completed in advance of the medication having been supplied,

or subsequent thereto and sometimes patients did not receive their medication at all. Rifampicin, one of the drugs contained in the standard treatment, colours the urine bright orange and Dr Craven accordingly checked patients' urine to ascertain whether or not they had taken their medication.

[118.] Under cross-examination Dr Craven had to concede that although Rifampicin can be detected in the body by chemical means for up to 24 hours, he could not find any information indicating for what period of time after taking the medication a person's urine would be orange. The colour of the urine would depend upon the particular patient's metabolism, the time when the medication had been taken and the food which had been consumed. The colour of a person's urine was accordingly not necessarily a reliable indicator as to whether or not the medication had been taken. Dr Craven, however, pointed out that his observations of a patient's urine not being orange, had to be seen against the background of a large number of patients whose urine was orange.

[119.] Dr Craven also conceded in cross-examination that not every management failure or 'dereliction of duty' necessarily resulted in harm to a particular prisoner or to the prison population at large. Indeed, in some instances patients who had on occasion ostensibly not received their medication, were eventually cured of TB. An unsatisfactory level of care would, however,

have resulted in inadequate treatment of persons who were ill with TB so that the plaintiff would have inhaled far more bacteria than he would have in the outside world. Dr Craven's opinion in this regard was based on his practice of medicine over 30 years and the period of 16 years during which he had worked at the maximum security prison.

[120.] Dr Craven further conceded that it could not be said that there was no functioning medical system at the maximum security prison during the period 1999 to 2003. There was a system and sometimes it worked, while at other times it did not. He saw it as his ethical duty to get the system improved and that is why he made representations to a variety of people, including the Parliamentary Portfolio Committee.

[121.] Dr Craven agreed that the nurses, despite being understaffed, prioritised chronic illnesses, TB and attending to dressings. He also agreed that some pro-active screening of potential TB patients did take place. Indeed, he was prepared to accept that persons with persistent coughing were offered a TB test by the nurses, when it was put to him that Gertse would testify to this effect. Dr Craven, however, testified that he never saw any 'suspect registers' while he was employed at the maximum security prison and did not know that such registers existed.

[122.] Dr Craven agreed with Dr Theron that certain people are at risk for

becoming ill with TB, notably persons of the lower social orders such as the unemployed, poverty stricken, homeless and vagrants. The reason why these people are more susceptible to TB, is because they are often malnourished and tend to live in overcrowded flats or shanties one on top of the other. Dr Craven also explained that persons of the lower social orders often only see a doctor once they have been ill with TB for some considerable time, because people who live in overcrowded conditions and who smoke, frequently cough and do not regard a cough as pathological. Therefore, they do not seek medical help until such time as further symptoms have presented such as, for example, substantial weight loss, coughing of blood, or night sweats.

[123.] Dr Craven confirmed that most people in South Africa inhale TB bacteria in early life. Those who subsequently become ill with TB either suffer a re-activation of the bacterium which had been inhaled earlier, or become reinfected when a fresh dose of the TB bacterium is inhaled. There is a difference of opinion in medical circles as to whether reinfection is more common than reactivation.

[124.] As far as the plaintiff himself is concerned, Dr Craven confirmed that he saw the plaintiff on the morning after the latter's admission to the maximum security prison, i.e. on 23 November 1999. He was concerned about the plaintiff's ischaemic heart disease, advised him to stop smoking and to lose

weight and ordered that the plaintiff receive half rations. Thereafter, he saw the plaintiff from time to time when the latter had medical complaints and he ordered appropriate treatment.

[125.] On 14 April 2003 the plaintiff complained of TB symptoms and sputum samples were taken which produced a negative result. On 20 May 2003 the plaintiff complained that he had not received his chronic medication for a period of 3 weeks and on 27 May 2003 the plaintiff presented with an inguinal hernia, which was a surgical emergency. Dr Craven ordered his immediate removal to Victoria Hospital. He saw the plaintiff again on 2 June 2003 after his discharge from Victoria Hospital, when it was reported that the plaintiff had pulmonary TB. Dr Craven ordered that sputum samples be taken, that the plaintiff's X-Rays be obtained from Victoria Hospital, that the plaintiff be admitted to the hospital section and be seen again in 8 days' time. On 3 June 2003 Dr Craven saw the X-Ray which had been taken, which showed that the plaintiff had bilateral infiltration and cavities in the lungs, which was indicative of TB.

[126.] On 9 June 2003 Dr Craven received a laboratory report which indicated that both of the plaintiff's sputum samples tested positive for TB. On the strength of the positive sputum tests, Dr Craven ordered that the plaintiff's illness with TB be reported to the Medical Officer of Health, that the plaintiff be started on the standard treatment for TB, Regimen I, and that the

plaintiff be given double rations. The plaintiff started his TB treatment on 10 June 2003 and was sent back to his section, because it was not logistically possible to isolate him, no space for isolation being available. On 18 June 2003 the laboratory reported a positive culture, which confirmed the diagnosis of TB which had been made and on 14 August 2003 a further laboratory report was obtained which showed that the bacteria were sensitive to Regimen I. The last time Dr Craven saw the plaintiff in prison was on 19 September 2003.

[127.] Dr Craven testified that the measures which were required to control the spread of TB at the prison included the following:

[127.1] Separating prisoners who had active TB from the general prison population;

[127.2] Having a sufficient number of properly trained nurses available who had knowledge of the basic management of TB, the testing for TB and the treatment of TB, so that TB cases could be promptly diagnosed and treated, thereby reducing the number of TB bacteria in the environment;

[127.3] Proper application of the DOTS system, that could easily have been achieved by the nurses. Warders could have been asked to assist

in this regard;

[127.4] Reducing the overcrowding of cells;

[127.5] Increasing the number of nurses;

[127.6] Imposing and maintaining discipline.

[128.] In regard to the necessity for discipline, Dr Craven testified that in a disciplined situation prisoners did what they were told, warders and nurses did what they were told and prisoners received their prescribed medication. In a controlled environment such as the prison, if a doctor ordered the isolation of a prisoner, the prisoner would be isolated and if a logistical problem arose in this regard, the problem would be discussed between the warders or governor and the doctor and efforts would be made to resolve it. In fact, during the previous military style of management, this was exactly what happened.

[129.] In Dr Craven's opinion, the failure to manage TB in the maximum security prison in accordance with the guidelines of the DOH would have caused, or contributed to, the plaintiff becoming ill with TB. Such failure would have increased the number of bacteria per cubic metre of air and the plaintiff would accordingly have inhaled more of the TB bacteria than he would have

in the outside world. The increased dose of bacteria, in other words, would have increased his chances of becoming infected with TB if he had not been infected previously and would have increased the risk of any dormant TB bacteria becoming re-activated, thereby leading to the plaintiff becoming ill with the disease.

[130.] Dr Craven was asked to comment on the plaintiff's evidence that he had gone to court on some 70 occasions, whereafter he was usually placed in a communal cell with other prisoners until the following day. Dr Craven testified that in theory when prisoners came back from the courts, newly arrived prisoners, i.e. those who came into the prison for the first time, ought to have been separated from existing inmates. In practice, however, he believed that this had not been done for logistical reasons.

[131.] Dr Craven conceded that while the plaintiff was detained in a single cell his exposure to TB bacteria would have been less than if he had been in a communal cell. However, the plaintiff would still have been exposed to bacteria drifting in the passage on his way to the shower.

[132.] Dr Craven was unable to comment on the day-to-day system which the nurses adopted in seeing patients in the sections and on whether or not a nurse conducted screening of incoming prisoners, because he had no personal knowledge of these events. Dr Craven only heard of a

computerised TB monitoring system at the maximum security prison during the course of the trial, when he was shown an extract from the computerised record. He also saw the TB-wheel, which the nurses used to monitor treatment of TB patients, for the first time when he was in court.

[133.] As was the case with Dr Theron, Dr Craven made many written and verbal recommendations through the appropriate channels to the governor of the maximum security prison, to the Minister, to the Provincial DOH, the Inspecting Judge of Prisons, the Medical Officer of Health, the Medical Association and to the Parliamentary Portfolio Committee. These recommendations related to the employment of additional warders and nurses, the reduction of the number of prisoners and the imposition of better discipline.

[134.] Shortly before he was called to testify, Dr Craven became aware of a letter which the Defendant had written to the Commissioner of Correctional Services dated 4 October 2001 which referred to the report which Dr Craven had provided to the Parliamentary Portfolio Committee and certain correspondence which had been exchanged between various officials in the Department as a consequence thereof (Exhibit H). In his letter, the defendant, inter alia, instructed 'the Acting Provincial Commissioner, Mr Nxele, the Area Manager at Pollsmoor, Mr Engelbrecht and the entire Pollsmoor Management to treat this health problem as a matter of extreme

urgency' and stated 'This horrendous situation as reported must not be allowed to continue any (sic) day further, particularly where the Management has the powers to take immediate remedial steps.'. In a letter dated 9 October 2001 written by the Commissioner of Correctional Services, Mr Mti, to the Acting Provincial Commissioner, Mr Nxele, the former stated 'If the situation as described by Dr Craven, is not addressed, we are heading for an unprecedented catastrophe. I urge you to place the matter at the top of your priorities and (sic) report back to me before the end of October 2001.'

[135.] Despite the serious tenor of the aforesaid letters, Dr Craven testified that no visible improvement was brought about in the health service at the maximum security prison. Although he had made many representations aimed at improving the health care system, nobody liaised with him, or sought his advice in this regard. Instead, he was dismissed by the Provincial DOH and testified that his dismissal had been called for by the DCS. He subsequently took his case to the Labour Court and was reinstated. Pursuant to such reinstatement, he has been working at the Lady Michaelis Hospital.

[136.] Dr Craven could not recall a visit to the Pollsmoor Prison complex by the Director of Health and Physical Care and the Provincial Heads of the Health Care Service during March 2001. He saw the report which had been drawn

subsequent to such visit for the first time while he was in the witness box.

[137.] In dealing with TB statistics at the maximum security prison, Dr Craven was referred to a schedule covering the period 1998 to 2009 which had been prepared by the authorities at the prison. Dr Craven drew attention to the fact that the copy of the actual registers which had been provided, clearly showed the schedule to be incorrect. So, for example, the total number of TB cases for 2001, according to the register, was 177 whereas the schedule referred to only 69 cases. The schedule was also patently incomplete inasmuch as no figures were provided for certain months, such as, for example the months of April to October in 2001.

The Evidence of Mr Gertse

[138.] According to Mr Gertse, the DCS uses three categories of nurses - assistant nurses, staff nurses and professional registered nurses. Each of the 5 prisons at Pollsmoor has its own hospital and each has its own health care personnel consisting of clerks, nurses and a doctor. During the time of the plaintiff's incarceration, a total of 4 doctors were employed on an agency basis and they worked in the mornings up to lunch time. Nurses worked day shifts from 07h00 to 16h00.

[139.] From 2001 to 2003 the head nurse was Mr Slinger. He was in charge at the

maximum security prison and had an office in the hospital. His second in command was Mr Hillier, who worked in the hospital itself, as did Sister Ndzabe. Mr Erasmus was the nurse in E-section, Mr Tiervlei was in D-section and Mr Sibeko, who was a staff nurse, was in charge of C-section. A-section was headed by Mr Aysley and Mr Van Staden used to work in the hospital section, but the latter moved to the medium B prison. Mr Gertse worked at B-section. The nurses were assisted by 4 clerks and approximately 4 nurses from an agency, who were employed on a temporary basis.

[140.] Mr Gertse testified that the health system at the maximum security prison is nurse-driven, with a doctor providing support. In practice, that means that all cases have to be seen by nurses and that only those cases which are not within the nurses' scope of practice are seen by a doctor.

[141.] In the ordinary course, nurses came on duty at 07h00. The nurses would gather in Mr Slinger's office in order to share information relative to the day's programme, whereafter medication would be collected from the store. Each prisoner's prescribed medication would be placed in a separate plastic bag. 'Pill parade' would then be conducted in the sections. There was a sub-clinic for each floor so that sections E1, E2 and E3, for example, would share one clinic on E-floor, such clinic being conducted in a cell reserved for this purpose. For purposes of pill parade, each nurse was provided with a

special trolley, which was divided into compartments into which each prisoner's medication was placed, a ringbinder containing copies of the relevant prescriptions and a medicine administration card for each inmate on which details of the medication administered, had to be recorded. Once the card was full, it would be placed into the person's hospital file. In addition to the prescribed medication, the nurse handed out ordinary over-the-counter type medication such as Panado, cough mixture, foot powder, ointments, bandages and plasters. According to Mr Gertse, all prisoners except those who were in hospital, received their medication in the sections during pill parade. So-called 'ward stock' consisting of Panado, bandages, ointments and the like were kept in the cell where the clinic was conducted.

[142.] Mr Gertse testified that a warder would normally record prisoners' complaints in a complaints book. Inmates who had medical complaints would be sent to the nurse in the section for assessment. The nurse would hand out medication, if appropriate. If the prisoner's complaint fell outside of the scope of the nurse's practice, he would be referred to the doctor in the hospital section. A particular day of the week was reserved for inmates of each section to visit the doctor. If a medical emergency arose, an inmate would, however, be sent through to the hospital immediately.

[143.] During a special course in the management of TB which Mr Gertse completed in 2003, he was taught the signs and symptoms of TB and

received training around the taking of sputum samples which had to be sent to the laboratory for analysis in order to make a diagnosis. Mr Gertse stated that once the doctor had prescribed the applicable TB medication, it was the responsibility of the nurse to manage the treatment. The TB-wheel was used as an aide for the nurse to calculate when follow-up sputum tests had to be conducted and to monitor the nature of the medication that had to be administered. After the first two months, or the intensive phase, of the treatment the patient's medication would be adjusted. The nurse was responsible for handing the medication to the patient and for marking off the applicable box on the patient's treatment card. Mr Gertse said that he did not know that the infectious phase of the disease, according to the doctors, lasted for a period of two weeks after treatment started.

[144.] Mr Gertse testified that the doctors saw patients in the hospital section and that they did not go to the sections where the inmates were housed. The doctors did not know what the tasks were that the nurses had to perform.

[145.] In regard to the screening of prisoners, Mr Gertse testified that offenders coming into prison from the courts would wait in the yard outside the prison building to be counted. The nurse on night duty would ask whether there were any medical complaints and the names of those who said they did, were noted. Prisoners would thereafter be called to enter the building individually in order to be searched, whereafter they would be detained in

a holding cell. Ordinarily prisoners could not be taken back to the sections, because the last vehicles only returned from court at around 18h00 or 18h30 and by that time the cells had been locked down. The night nurse would receive a printout containing the names of persons who had been admitted to the prison and would then go to the holding cells to deal with medical complaints. Minor complaints would be dealt with there and then and prisoners who had more serious complaints would be sent to the hospital so that the doctor could see them the following day. If there was a medical emergency, the prisoner would be sent to Victoria Hospital. The following day, returning prisoners would be taken back to their cells and new arrivals would be screened by the nurses in the court yard at the hospital section.

[146.] Mr Gertse was referred to the forms (Exhibits O and P) which had to be completed during the screening process when persons first entered the maximum security prison. He could not explain why certain prisoners who had ostensibly been allocated to a particular section had apparently not been screened, because their details did not appear on the form. It is also not clear from Mr Gertse's evidence when these forms were completed. In his evidence in chief he testified that prisoners' names were recorded on computer as they came into the system, prison numbers were allocated to them and their medical complaints were noted. The computerised record would be printed as soon as all of the prisoners who had arrived from court

were inside and the list would then be given to the nurse. His answer clearly suggested that the form was completed that evening. Under cross-examination, however, he stated that prisoners' medical details were only filled out on the form when they were screened at the hospital the following day. He then, for the first time, stated that there was a separate book in which the names of persons who had medical complaints would be noted upon admission and that such book would be given to the hospital the following day.

[147.] Mr Gertse testified that the maximum security prison relied on a self-reporting system in terms whereof inmates had to take the initiative and had to report if they were ill or required medical assistance. Such system also applied in instances where inmates suspected that they might have TB. Inmates' complaints would be lodged with a warder, who would make a note in the complaints register. Either the inmate or the warder could then bring the complaint to the attention of a nurse. If TB was suspected, the inmate would be requested to provide a sputum sample in the presence of the nurse and the latter would note such procedure in the suspect register which, according to Mr Gertse, was already being used when he first came to Pollsmoor in 2001. If the sputum test yielded a positive result, such fact would be noted in the suspect register and the report would be forwarded to the doctor. Negative results were similarly noted in the suspect register, but the reports in such cases would not be forwarded to the doctor. The inmate would be informed of the negative rest result and would be advised

to return in 6 months' time for a further sputum test. Only if a prisoner persisted in complaining after a negative result had been obtained, would he be referred to the doctor so that the latter could decide whether or not he needed to be referred for X-Rays.

[148.] When asked why Mr Muller, Dr Theron and Dr Craven appeared to have been unaware of the existence of the suspect register, Mr Gertse testified that Mr Muller was not working inside the maximum security prison, he had an office outside of the admission centre and he only worked in the maximum security prison over week-ends. Drs Craven and Theron did not know about these registers and never asked to see them, but the nurses were told to keep the registers during their training. Although Mr Gertse testified that suspect registers were used during the time when the plaintiff became ill with TB, he stated that he could not find these.

[149.] Mr Gertse testified that once an inmate had tested positive for TB, he would be seen by the doctor, who would issue a prescription for the required medication. The doctor would make a note of the medication required, e.g. Regimen I, on the hospital file, as well as a note that the person had to receive double rations. The nurse would fill out the green patient treatment card as well as the blue hospital card and would immediately start the medication. If the person was very ill, he would be admitted to hospital, but otherwise he would be sent back to one of the single cells reserved for isolation in the sections. After a period of two weeks, when they were no

longer infectious, inmates would go back to the cells which they normally occupied. (Mr Gertse's evidence in this regard clearly implied knowledge of the fact that persons were still infectious during the first two weeks of treatment and contradicted his earlier evidence in this regard.)

[150.] Under cross-examination Mr Gertse was referred to Chapter 7 of the TB guidelines which contains a diagram indicating that broad spectrum antibiotics ought to be prescribed for 7 days and that repeat microscopy was indicated in instances where both sputum tests yielded negative results, but the patient's condition failed to improve. Mr Gertse stated that inmates who continued to complain after negative results had been obtained, would be given cough mixture and would be referred to the doctor the following day. The doctor would then decide what had to be done. However, he subsequently conceded that the prisoner would only be referred to the doctor at some later stage if the cough did not stop once the cough mixture had been used and that the particular prisoner would not be isolated in the interim.

[151.] In cross-examination Mr Gertse was also referred to the provisions of clause 7.1.15 of the standing orders which provides that prisoners who are suspected of having a contagious disease, such as TB, should be kept separately from healthy prisoners until such time as the attending medical officer has certified that they no longer pose a threat to the health of others. Mr Gertse confirmed that persons whose names were included in

the suspect register were not isolated prior to starting treatment.

[152.] According to Mr Gertse, the first three single cells in a section would normally be allocated to isolation. The single cell in which the plaintiff had been detained, was further down the corridor. He conceded that the plaintiff had not been isolated while he was in the hospital section, but said that the nurse in the section was responsible for isolating him. Mr Gertse differed from Mr Muller's evidence that isolation was often not possible because the prison was overflowing. He said that people went in and out all of the time and that he tried his best to isolate people who tested positive for TB.

[153.] Mr Gertse testified that the DOTS system was applied when prisoners had to take their TB medication. The inmate had to take the medication in the presence of the nurse, the nurse would check that the medication had been swallowed and the inmate would in fact be asked to make a special click with his tongue which would ensure that the medication was swallowed. The nurse would then tick off the applicable box on the blue hospital card.

[154.] In cross-examination, Mr Gertse was also confronted with the fact that the plaintiff's TB hospital card reflected that he had been observed taking his medication on days when he had appeared in court and that he could not have been so observed. He then conceded that the nurse would tick off the card even if he/she had not observed the taking of the medication as was

required, in instances where the prisoner was trusted to have done so. He identified the signature at the foot of the hospital card as that of Mr Slinger, the head nurse at the time. He acknowledged, however, that Mr Slinger was not the person who would have administered the plaintiff's medication, it would have been Sister Ndzabe or Mr Erasmus and identified the handwriting on the front of the hospital card as that of Sister Ndzabe. When it was pointed out to him that Sister Ndzabe worked in the hospital and not in the sections, he said that she would check with Mr Erasmus, who performed the pill parade in the section, each day and would then tick off the card. Mr Gertse subsequently changed his evidence in this regard again and stated that Sister Ndzabe and Mr Erasmus both ticked off the card.

[155.] Mr Gertse testified that a computerised record is maintained at the maximum security prison in order to record reportable diseases and that this system had already been in place when he first started working at Pollsmoor. The information recorded on the system includes the inmate's name, prison number, date of birth, diagnosis, date of diagnosis, date when the illness was reported to the DOH, the place and source of infection and the preventative measures taken. He stated that is possible to extract information from this data base in regard to the number of TB cases which were reported at the prison in any given year. A monthly report would in fact be sent off to the Provincial office of the DCS. No extract from such data base was, however, submitted in evidence.

[156.] According to Mr Gertse, there was a good relationship between the warders and nurses and nurses had no difficulty gaining access to the sections. Ordinarily, however, nurses only went into the cells if a prisoner was too ill to walk to the sub-clinic in the section.

[157.] Mr Gertse stated that he did not see Dr Theron in the hospital and that the latter did not work in the sections.

[158.] Mr Gertse contradicted Dr Theron's evidence that the number of nurses at the prison at one stage dropped to only 2. According to Gertse, that was never the case. At the maximum security prison, there were always at least 5 to 6 nurses on a daily basis and the only time when there might have been only one or two nurses on duty would have been if there was a team building session. Team building sessions, however, were held after parades at around 13h00 or 14h00 and, according to Mr Gertse, most of the time offenders were locked up by 14h00. Although he admitted that there was a shortage of nurses to the extent that the actual staff complement was only approximately 50% of the number of approved posts on the staff establishment, he denied that such shortage was severe. He was, however, eventually constrained to admit that there were barely enough nurses to staff the hospital and the sections, that there were days when there were not enough nurses to do the work in the sections and that the warders then had to bring the prisoners to the hospital.

[159.] With reference to the TB registers which Dr Theron alleged had not been properly kept, Gertse testified that the registers were kept and that neither Dr Theron nor Dr Craven ever looked at these. Gertse also denied that the health system in the maximum security prison had broken down, as was alleged by both Dr Theron and Dr Craven. Under cross-examination, Mr Gertse alleged that at some stage a 'TB blitz' was conducted when the nurses went from section to section to take sputum samples from any prisoner who wanted to be tested for TB. (This evidence had not been put to either the plaintiff or any of the witnesses who testified on his behalf.) When plaintiff's counsel referred him to the fact that the TB guidelines prescribed the taking of sputum samples on two consecutive days, Mr Gertse, for the first time, alleged that samples were in fact so obtained.

[160.] Mr Gertse testified that Dr Craven insisted on absolute silence, because he could not assess patients if it was too noisy. At times when it was too noisy, Dr Craven would leave early. Sometimes Dr Craven would have long talks with some of the patients which resulted in him not having time to attend to all of the prisoners who needed to see him before he knocked off. Mr Gertse did, however, confirm that Dr Craven made notes of things that had not been done and that he would leave a copy of such notes on the desk of Mr Slinger, the nurse in charge of the maximum security hospital.

[161.] As regards the after hours nursing service, Mr Gertse testified that a nurse

had to be on standby at the Pollsmoor premises from 16h00 until 07h00 the following day. If the nurse on standby did not live on the premises, he/she had to come in to be there physically. The after hours shift was divided into first watch, from 16h00 to midnight, and second watch, from midnight to 07h00. During first watch the nurse would have to see all of the new prisoners who came in from the courts and after that the same nurse would be on standby for calls to any of the prisons on the Pollsmoor premises until 07h00 the following day.

[162.] After hours, if a prisoner complained to the warder on duty in his section that he was not feeling well and needed to see the nurse, the warder would inform the person in charge that a nurse was required. The nurse who was on standby would be called to see the inmate concerned. This was the case even if a prisoner complained of a headache. If the prisoner who complained of the headache was in one of the communal cells, the warder on duty in that section would call the warders on duty in the other sections of the prison to assist in taking the particular prisoner out of such cell, because there was only one warder on duty in each section after hours.

[163.] Mr Gertse denied that one of the inmates, Trevor (Blignault), conducted the screening of prisoners on admission, as was alleged by the plaintiff. He testified that Trevor used to assist in writing out the prison card which is handed out to each unsentenced prisoner.

The Evidence of Prof Van Helden

[164.] Prof Van Helden testified that 65% - 80% of adults in South Africa are thought to be infected with TB, which means that they are at risk for developing the disease. However, not all of the people who have been infected with the bacterium become ill. Only approximately 10% of people who have been infected with the TB bacterium, develop infective disease. South Africa, however, has one of the highest incidence rates of TB in the world (600 per 100,000 persons per annum) and in certain areas of the Western Cape the figures are higher. In Khayelitsha, for example, Medicines Sans Frontiers have measured 1600 per 100,000.

[165.] According to Prof Van Helden, the annual risk of infection in South Africa has been measured and estimates of between 3.5 and 4.8% have been made. In his opinion, the true risk is higher. The proportion of people infected in some communities - Ravensmead and Masiphumelele - has been measured using the skin test referred to above and it has been shown that 52.5% of children in the age group between 14 to 17 have been infected. There is accordingly less than a 40% chance that an adult South African has not been exposed to TB infection by age 53 (the age at which the plaintiff came into the prison).

[166.] Under cross-examination, Prof Van Helden stated that the annual risk of infection as aforesaid had been calculated by testing children between the ages of 5 and 7 in Ravensmead and Masiphumelele (Ravensmead is one of

the former so-called 'Coloured Townships', one of the less affluent communities in the Bellville area and Masiphumelele is an informal settlement near Kommetjie). He conceded that one would expect a higher rate of infection and possibly a higher rate of disease in lower socio-economic groups such as those. Children in Constantia, Bishops Court or Plumstead (upper and middle class suburbs in Cape Town) have not been tested and the 3.5% or 4.8% risk of infection would almost certainly not be applicable in those areas. Persons who live in middle and higher socio-economic classes generally have a lower incidence of TB. Prof Van Helden would, however, not concede that persons living in the middle and higher economic classes would be less represented in the overall group of 10% of infected persons who actually became ill with the disease. In this regard, he stated that whether or not a person becomes ill with the disease, depends on genetic factors and inherent susceptibility. His reasoning in this regard is clearly flawed inasmuch as it does not take into account that on his own evidence far less people from the more affluent communities would be included in the pool of persons who had been infected with TB.

[167.] The research which has been done by Prof Van Helden's unit has shown that persons who have had active TB are innately susceptible to the disease and that their risk of developing the disease again is 4 to 7 times higher than that referred to above.

[168.] As regards the difference between reactivation and reinfection, Prof Van

Helden testified that if a person has a recurrent episode of TB, one would not ordinarily know whether it has been caused by reinfection or by reactivation. If a period of more than 2 years has elapsed after the first episode of TB disease, it is usually referred to as a case of reinfection. In the plaintiff's case, it was not possible to state unequivocally whether his TB episode resulted from transmission in prison, or from reactivation of previous infection whilst he lived in open society. One of the studies which was referred to in a publication in which Prof Van Helden participated, however, found that 56% of active disease episodes in that study community could be ascribed to recent transmission.

[169.] Whilst Prof Van Helden was critical of certain portions of the article, Exhibit E, he agreed that in high endemic societies, such as Khayelitsha, most infections causing active TB in adults, represented currently circulating strains of TB that were recently transmitted. He also agreed that in all likelihood, ongoing transmission causes repeated episodes of infection.

[170.] Prof Van Helden pointed out that it was not known whether or not the plaintiff had been infected with the TB bacterium prior to his admission to prison. Inasmuch as there was no evidence that the plaintiff had not been infected prior to entering prison, Prof Van Helden stated that he probably fell into the category of persons who had already been infected, because 80% of adult South Africans have had exposure to the bacterium. Indeed, Prof Van Helden stated that the chances of plaintiff having been exposed

to TB bacteria prior to entering the prison were 'exceptionally high', because South Africa has the dubious distinction of having one of the highest incidences of TB in the world. Under cross-examination, however, it transpired that Prof Van Helden had been unaware of the fact that the plaintiff had been detained in the maximum security prison for approximately 3 years before he developed the disease and that he had accordingly not taken such fact into account in arriving at his conclusions.

[171.] Prof Van Helden stated that the plaintiff's exposure to active TB cases in prison was probably 'very low or non-existent'. His reasons for coming to this conclusion were the following. Mr Gertse had informed Prof Van Helden that the plaintiff had mostly been kept in a single cell, which he shared with persons who had not had active TB at any stage; that inmates in single cells were let out to fetch food twice per day before inmates from communal cells were released and that the plaintiff stayed in the prison hospital for some time. Prof Van Helden accordingly surmised that plaintiff's exposure to other inmates was low in numbers and short in time, so that his exposure to TB cases would probably have been very low. Prof Van Helden had also been informed that inmates who were diagnosed with TB received prompt treatment and knew that when patients received the prescribed treatment, they became less infectious quite rapidly. The aforesaid information and knowledge led him to believe that even if the plaintiff had been exposed to persons regarded as active with TB after they had been on therapy, those persons were probably not infectious.

[172.] Prof Van Helden was of the view that the plaintiff had received the best standard of care that was possible in South Africa. He was immediately placed on appropriate therapy once the positive result of the sputum test was obtained and there was no delay pending the result of the culture. He received the full recommended amount of his medication regularly and for the required period of time. Indeed, Prof Van Helden stated that in his view the standard of care in the prison was better than that in the outside world. He based this conclusion on information provided by Mr Gertse that prisoners who had been diagnosed as being ill with TB were all moved to a separate facility, which removed the risk for others, whereas in the outside world TB patients usually remained at home with their families. He was, however, constrained to concede that inmates could nevertheless become infected through contact with fellow prisoners who had become ill with the disease but had not yet been diagnosed and that the plaintiff could have been infected with TB if he had been in close proximity with actively ill people. Prof Van Helden, however, held to the view that individuals exposed to persons with active TB in open society experienced the same risk. He also conceded that if isolation cells were not sealed off from the main area or section of the prison, it would be undesirable.

[173.] Prof Van Helden was sceptical about Dr Theron's 'TB patient profile' and the latter's statement that the plaintiff did not appear to fall into the category of people who were likely to develop TB. Prof Van Helden stated that Dr

Theron's observations in this regard had not been peer reviewed, that he had not heard of such a profile and that even a top class athlete could develop TB if he/she had the wrong genes. He doubted that one would be able to recognise a candidate for TB at a distance and did not think that one's mental attitude would affect one's susceptibility to the disease. Prof Van Helden, however, agreed with Dr Theron's evidence that stress affects the immune system and that prison presents a stressful environment. He also conceded that he is not a clinician and that he has never diagnosed any person who had active TB.

[174.] Prof Van Helden conceded that in areas with poor ventilation, TB bacteria which had been expelled could drift around and would possibly remain alive for hours. He also conceded that in overcrowded communal cells the chances of somebody being infected with TB bacteria that were coughed up were much higher than it would be in a cell which was not overcrowded. The risk was also present when prisoners lined up in the passage to go out for exercise. In short, if one was in any area with a high concentration of TB bacteria, the risk of becoming infected was higher.

[175.] Prof Van Helden further conceded that he had not visited the prison to familiarise himself with conditions and that he had formulated his opinions on the basis of information given to him by Mr Gertse and others, which he assumed to be true.

Evaluation of the Evidence

[176.] The plaintiff clearly did not always listen carefully to the questions that were put to him, with the result that his answers were not always germane to the issue and questions often had to be repeated. This fact was particularly apparent when he was cross-examined about the duration of his admission to the prison hospital and the corresponding notes in his medical file. At times, he was somewhat long winded and appeared to become confused about events during the period of his incarceration.

[177.] Given that prisoners who were awaiting trial spent approximately 23 hours out of every 24 in their cells, there must clearly have been little to distinguish one day from another. Indeed, the plaintiff himself said that one day was much like the next. The plaintiff spent approximately 4½ years in prison awaiting trial and attended court on approximately 70 occasions during that time. In these circumstances it does not appear to me to be surprising that the plaintiff became confused at times.

[178.] It was readily apparent that the plaintiff feels aggrieved by the fact that he was incarcerated and that his imprisonment resulted from what he regards as trumped up charges. However, he blames his incarceration on the investigating officer and not on the defendant, or the latter's officials/employees. The plaintiff was fair towards the defendant in his testimony and did not appear to be gilding the lily. So, for example, he

readily admitted that warders tried to help him as far as they were able to and that some of them went out of their way to do so. He also made admissions that could count against him, such as, for example, that he had told everybody in prison that he was going to sue as a result of the fact that he had become ill with TB.

[179.] On the whole, the plaintiff came across as a witness who was honestly trying, to the best of his ability, to give an accurate, truthful and reliable account of the time he spent in prison and, in particular, of the circumstances surrounding his illness with TB. I have no hesitation in accepting his evidence.

[180.] Doctors Theron and Craven as well as Mr Muller have been in conflict with the DCS and for this reason their evidence was approached with a measure of circumspection. Their conduct in the witness box was carefully observed and scrutinised, as was the evidence that they proffered.

[181.] Albeit that Dr Theron was critical of the DCS and its management of TB (or lack thereof) in the prison, he was very much aware of the fact that he was called as an expert witness and that he had to be unbiased in the giving of his evidence. He made it clear that he does not have any difficulties or problems with the DCS in his personal capacity, that his concern was for the truth and that he was not taking sides.

[182.] Dr Theron was taken to task in regard to his evidence that he doubted the statistics relating to the number of nurses employed at the prison, which had been provided by the Defendant during the course of the trial. In the event, however, his evidence regarding the shortage of nurses was supported by Mr Muller and the letters which the latter forwarded to the authorities at the time. Even Mr Gertse had to concede that there was a drastic nursing shortage. Moreover, none of the source documents which had been used to compile the statistics were made available so that the figures could be verified. In such circumstances, Dr Theron's reservations about the veracity and reliability of the defendant's statistics does not strike me as untoward, or unfair, nor does it detract from the value of his evidence.

[183.] Dr Theron's evidence relating to his development of a TB patient profile was the subject of much scrutiny under cross-examination. It became clear from the evidence, however, that such profile consisted of certain clinical observations and objectively ascertainable criteria which he applied in his practice of medicine, such as, for example, an under nourished appearance, and clinical signs of depression, which tended to undermine a patient's immune system. In the final analysis, the various elements of the TB patient profile which he developed consisted of various symptoms and behaviour which he would consider in arriving at a differentiated diagnosis, just as he would do if he had to determine whether or not a patient suffered from, for example, heart disease. His medical training and clinical

experience caused him to take account of the various factors which made up the TB patient profile in making a diagnosis of his patient's condition.

[184.] On an overall conspectus of the evidence of Dr Theron and of his demeanour in the witness box, I am satisfied that he was an honest and objective witness who gave a reliable account of the health system in the prison and of the impact which it had on the management and spread of TB. His main concern during the period of his employment at Pollsmoor was clearly the welfare of his patients and it was his concern for his patients that brought him into conflict with the DCS. I have no hesitation in accepting his evidence.

[185.] It was readily evident that Dr Craven is somewhat of a martinet. He is clearly a strict disciplinarian who sets high standards of performance for himself and others. He obviously believes that if a job is worth doing, it is worth doing well. It appears that at times he may have been somewhat inflexible in his approach to matters, such as, for example, his insistence on absolute silence when he had to see patients at the prison. He did, however, have a valid reason for doing so, inasmuch as he could not perform his job adequately if he could not hear a patient's lung, heart and blood sounds sufficiently clearly.

[186.] Dr Craven, like Dr Theron, appeared to have been genuinely concerned about the disintegration of the health system in the maximum security

prison, because this had a direct, negative impact on the welfare of his patients. His frustration with the DCS and the manner in which the health system in the prison was approached, was readily evident. He clearly took the responsibility which vested in him by the nature of his position at the prison very seriously and was, for this reason, very critical of the DCS. He testified in a calm and forthright manner and did not pull any punches.

[187.] Under cross-examination Dr Craven was referred to a number of patients' hospital files which had been selected at random, in order to determine the reliability and accuracy of his list of derelictions of duty. It was sometimes difficult to reconcile the derelictions which Dr Craven had listed with the contents of the individual hospital file. For this reason, Mr Jamie submitted that Dr Craven's evidence was unreliable.

[188.] Dr Craven's notes about the various derelictions of duty were rather cryptic and he conceded that these had to be interpreted in context. He was, however, at somewhat of a disadvantage when he was confronted with the various hospital files in the witness box, without having had a prior opportunity of refreshing his memory from such files. He conceded that he could not in all instances tie in the notes he had made with the contents of the files.

[189.] In my view, the fact that it was not possible to reconcile Dr Craven's notes with the relevant hospital files fully, does not serve to detract from the