Hospital and Health Service

Report on Opinion - Case 98HDC15521

Complaint

The Commissioner received a complaint from a consumer concerning treatment she received at a public hospital. The complaint is that:

- *In mid-April 1998 the consumer, who suffers from epilepsy and asthma, was left alone whilst undergoing a bone scan at the Hospital when the machine fell on her lower trunk. The consumer was unable to alert staff as the emergency buttons failed to operate.*
- *The consumer was taken for an x-ray and left waiting for some hours on a bed, unattended in a corridor. A nurse gave the consumer two pills and told her she could go home. She was not told what the medication was nor given the results of the x-ray.*
- *The consumer was discharged without any home care support being arranged by the Hospital staff.*

Investigation

The complaint was received on 16 June 1998 and an investigation was undertaken. Information was obtained from:

The Consumer
The Chief Executive Officer, Hospital and Health Service
The Homecare Co-ordinator
The Manager, Medical Imaging

Relevant clinical records were obtained and viewed.

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Outcome of Investigation

On a Monday in mid-April 1998, the consumer attended a public hospital to have a bone scan. The consumer lives two and a half hours' drive from the hospital. A neighbour transported her to the hospital where she had the scan at 2.00pm. The consumer is an epileptic and an asthmatic.

The consumer said that while she was having the scan the machine fell on her. "*The machine fell onto the lower part of my trunk. The nurses couldn't hear me call, but a lady, in the room (also having a scan) called out for me. Two nurses came, the emergency buttons didn't work. They could not get it off me so two men were called to lift it off. They took me down to x-ray me, then left me lying on a bed, in a corridor, unattended, until 6pm, when a nurse came, gave me two pills to take and said I could go home. They said nothing about the x-ray results. They did not say what the pills were. They also gave me ACC forms.*"

The consumer said she slept most of the journey home and arrived feeling very drunk and wondered if the pills had reacted with her medication. She went straight to bed, feeling *"very bad"*.

The consumer lives alone. The consumer said another neighbour checked on her and was horrified when she saw the state the consumer was in. The consumer was very sore, in a lot of pain and unable to do much.

Two days later, on the Wednesday, the consumer's neighbour rang the District Nurse who in turn rang ACC who arranged for the Homecare Co-ordinator from a homecare agency to call in and check on her. The Homecare Co-ordinator came immediately and the consumer said she expressed shock at the bruising on her body and the discomfort she was in. The Homecare Co-ordinator bandaged the consumer's trunk, which gave her support and relief, and helped her to shower.

The Homecare Co-ordinator said that the consumer was unable to meet her at the door as walking was an effort for her. She said that although the consumer's home cleaning was being looked after by a friend, the consumer's personal care and meals needed attention and endeavours to shower were an effort. The consumer had slept in her lounge chair each night as she was unable to get into bed. A caregiver was immediately assigned to assist the consumer.

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Outcome of Investigation, *continued*

Because the consumer was still very sore and had a lump below the rib cage she visited her General Practitioner. The GP sent her for another x-ray at a different hospital which scared her given her previous experience. The consumer made sure a nurse stayed with her while she was x-rayed.

During the investigation, the GP said he did not see the consumer until mid-May 1998. The GP said there were no bruises or many abnormal physical signs at that time but as the consumer was still complaining of left sided lower back pain, he arranged for an x-ray to be performed.

The day after the incident with the x-ray machine the consumer received a letter of apology from the Manager of Medical Imaging at the Hospital. The letter indicated that if she had any ongoing concerns either the writer or another named representative of the Hospital should be contacted. The consumer was upset as the letter contained no reference to follow up care. "*Nothing about the lack of care following the long wait, in view of the public, but no one checking on me, the fact that I was an epileptic, asthmatic and that I had to travel two and a half hours home after such trauma and in pain. No information only pills and sent off.*"

The Hospital's Response

In his response to the Commissioner, the Manager of Medical Imaging stated that two qualified nuclear medicine technologists were in attendance at all times during the scan. The Manager informed the Commissioner that the scanning room houses two scanners, with the main computer work station behind and to the left of the scanner used for the consumer's examination. As such, the technologists are not in the patients' sight at all times during the scan. However, the technologists were present in the scanning room/work station area. The Manager informed me that it is normal practice for the nuclear medicine technologist not to be in close proximity to the patient during the procedure to minimise technologist radiation exposure by the patient who has been administered a radio-pharmaceutical.

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Outcome of Investigation, *continued*

The Manager said that the scintigraphic imaging detector must be as close as is practicably possible to the patient during investigation if a high quality image is to be acquired. "*The gamma camera used for the examination was a recently installed General Electric Systems dual headed Millennium MG camera. The camera had been in use for 7 months since installation, without incident prior to this event. During the scan, starting from the patient's head, the technologist periodically lowers detector one, as the whole body sweep proceeds. This is necessary to maintain image resolution, as once the patient couch has moved to the chest and pelvic area there is a significant body contour 'gap' between patient and detector. At the scan commencement the technologist had lowered the detector over [the consumer's] head as per protocol and started the scan. At this point unnoticed by the technologist, the detector continued to move slowly toward the patient, despite the fact that the technologist had completed the set up, placed the handset in the handset holder, and commenced the scan. This continued detector motion was an equipment 'malfunction' and should not have been expected by the technologist."*

The Manager said the patient contact sensors and the emergency stop buttons were working correctly and one of the technologists activated an emergency stop button to halt the scan. The Manager explained that the gamma camera detector collimators, devices which restrict x-ray beams, are equipped with pressure sensitive collision sensors to detect patient contact and these were functioning. The Manager stated, *"However, given the large surface area of a patient chest, a higher force (pressure x area) was required to activate the collision sensors than would be the case for a small contact area. Consequently [the consumer] experienced moderate force to her chest prior to the system halting the scan and detector movement. The collision sensors were tested after the event, and found to be functioning properly."*

Once the detector was halted, the two technologists removed the consumer from the camera by withdrawing the sheet on which the consumer lay. At that point the consumer was attended immediately by the CT nurse and radiologist. Together these staff members performed a first aid assessment on the consumer and also called the Charge Nuclear Medicine Technologist.

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Outcome of Investigation, *continued*

The consumer was assessed as stable, though experiencing some difficulty in breathing. The consumer was escorted immediately by the CT nurse to the main Radiology department for a conventional chest x-ray which indicated that there was no abnormality detected in the heart or lung fields. The consumer was then transported to the Emergency Department.

The bone scan result recorded that the scan was compromised due to significant equipment failure, resulting in aborting the scan at the pelvic region. *"The tracer uptake from skull to upper pelvis is within normal limits. The scan is sub optimal. A repeat whole body bone scan may be useful at a later stage. The tracer uptake between the ribs and scapulae is within normal limits."*

The Patient Event Report was filled out at 2.10pm on the day these events occurred by two Staff Technologists and stated: *"Patient on Millennium 7 for whole body bone scan. Scan started OK. Top detector taken down slightly at chest level. Scan continued OK for 1 minute. Detector began to drive down onto patient. Stopped at minimum level. Patient unable to breathe. Unable to move detectors with either handset or on console. Called [Nuclear Medicine Technologist] for help. Had to drag patient out on blanket. Sat her up. Patient fainted. Called nurse and Radiology consultant."* The Staff Technologists then recorded that they called a nurse and that a chest x-ray was ordered and the consumer's blood pressure was taken. Follow up was recorded as, *"arranged consultation with Emergency Department. Transferred to Emergency at 1500."*

The consumer was triaged at 3.35pm and base line observations were taken and found to be within normal limits. The triage note records, *"Patient had machine in Radiology collapse on her this afternoon. Scratches and tenderness on right side"* and the consumer's condition was recorded as *"stable. Right sided tenderness. Shortness of breath. Increased pain with inspiration. Oxygen saturation 97%"*.

The consumer was left in the corridor of the Emergency Department as it was busy and no cubicles were available.

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Outcome of Investigation, *continued*

The consumer was examined by a doctor in the Emergency Department at 5.05pm. The doctor's consultation notes record *"machine in Radiology fell on patient onto left hand side of chest approximately three hours ago. Patient has pain on left side of chest now. No other injuries."* The doctor recorded there were, *"+ abrasions left side of the chest. + tenderness left side. No clinical fracture of ribs and nothing abnormal detected in the chest x-ray."*

The doctor prescribed the anti inflammatory, Voltaren, and the consumer was given two tablets for the pain in her chest.

The Manager of Medical Imaging stated, *"As there were only minor scratches and tenderness on the chest wall and the patient had presented as an out patient for x-ray there was no reason to arrange home care support. As there was no indication at the time of home care assistance the nurse helped to arrange transport home for [the consumer]."*

The Manager said that the Charge Nuclear Medicine Technologist phoned the consumer the following morning to check on how she was and to determine whether follow up was required. The consumer told the Technologist she was tender in the chest region and was concerned about her discomfort. The Technologist suggested a follow-up visit to her General Practitioner and/or telephone consultation with the Hospital Emergency Department.

The gamma camera was taken out of service for three weeks following this incident and was not recommissioned until the hospital was advised that it was safe to do so by General Electric ("GE"). Recommended corrective actions were applied.

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Outcome of Investigation, *continued*

Following an intensive three week investigation conducted by the Charge Technologist and local GE Engineers, including daily consultation with GE service and developmental engineers in both the USA and Israel, it was discovered that the incident was the direct result of a first time gamma camera hardware/software logic error allowing an unsolicited detector motion. This malfunction was not associated with operator error or failure to operate the equipment correctly or responsibly. This fault, to the knowledge of the Charge Technologist, was undocumented internationally at the time on any other system. As such it constituted an undocumented error in detector movement and control logic, first demonstrated on the system at this hospital.

Code of Health and Disability Services Consumers' Rights

RIGHT 4
Right to Services of an Appropriate Standard

2) Every consumer has the right to have services provided that comply with legal, professional, ethical, and other relevant standards.
3) Every consumer has the right to have services provided in a manner consistent with his or her needs.
4) Every consumer has the right to have services provided in a manner that minimises the potential harm to, and optimises the quality of life of, that consumer.
5) Every consumer has the right to co-operation among providers to ensure quality and continuity of services.

3 Provider Compliance

1) A provider is not in breach of this Code if the provider has taken reasonable actions in the circumstances to give effect to the rights, and comply with the duties, in this Code.
2) The onus is on the provider to prove that it took reasonable actions.
3) For the purposes of this clause, "the circumstances" means all the relevant circumstances, including the consumer's clinical circumstances and the provider's resource constraints.

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Opinion: Breach, Hospital and Health Service

In my opinion the Hospital and Health Service breached Right 4(2), Right 4(3) and Right 4(5) of the Code as follows:

Right 4(2) and 4(3)

The consumer was an asthmatic and an epileptic. She had experienced a frightening and painful accident during a bone scan and had fainted. Following the incident, the Radiology Department took appropriate measures to assess the consumer for any injury. These measures included assessment by a nurse and a doctor, a chest x-ray and consultation with the manager of the department. The consumer was then appropriately referred to the Emergency Department for assessment.

However at the Emergency Department there were considerable delays. There was a delay of one and a half hours from when the incident report was filled out at 2.10pm to when the consumer was triaged at 3.35pm and eventually assessed by a doctor in the assessment ward at 5.05pm. During this time the consumer was frightened and left alone for approximately an hour and a half in the corridor, as no cubicle was available. In my opinion the delay was unacceptable given that the Hospital and Health Service had caused her injury. The consumer was entitled to be treated with some priority.

Further, given that the Hospital caused this injury, given the consumer's medical conditions and the fact she lives alone a considerable distance from the Hospital, the Hospital and Health Service should have offered to keep the consumer overnight for observation.

In my opinion by failing to give the consumer priority, by leaving her in a corridor for one and a half hours and not keeping her overnight for observation, the Hospital failed to provide her with an appropriate standard of service that was consistent with her needs.

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Opinion: Breach, Hospital and Health Service, ***continued***

Right 4(5)

The Hospital and Health Service should have made or arranged for some provision for home care for a patient they had injured. It should not have been at the instigation of a concerned neighbour. A lot of appropriate energy and time went into determining the cause of the malfunction of the machine to ensure further concerns were safe, but insufficient attention was given to ascertain whether the consumer had any subsequent injuries as a result of the mishap.

The consumer was bruised and having difficulties with sleeping and moving around. Although the Manager of Medical Imaging apologised for the mishap the day after the incident, he suggested she ring either himself or her General Practitioner should she need to. This put the onus back on the consumer who had already told him she was having trouble getting around. By failing to consult directly with the consumer's General Practitioner after her injury, the Hospital and Health Service failed to co-ordinate with another provider to ensure there were no further harmful consequences to the consumer and therefore breached Right 4(5) of the Code.

Opinion: No Breach, Hospital and Health Service

Right 4(4)

It is implicit in the provision of a good bone scanning service that a patient not be harmed by the machinery used. The consumer was harmed during the bone scan. However I accept the malfunction was an unusual event which could not be foreseen and the Radiology Department took reasonable actions to assess the extent of harm to the consumer and did not breach Right 4(4) of the Code.

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Actions

I recommend that the Hospital and Health Service takes the following actions:

- Provides a written apology to the consumer for breaching the Code. This apology is to be sent to this office and will be forwarded to the consumer.
- Reinforces this apology by demonstrating its concern with some appropriate gesture for the consumer.
- Refunds the consumer the cost of her after care visit to the General Practitioner and the x-ray.

To ensure no other machine in service in New Zealand has the same data base fault, a copy of this opinion will be sent to the Radio imaging departments at major public Hospitals in New Zealand and to GEC.