



FINDING OF INQUEST

An Inquest taken on behalf of our Sovereign Lady the Queen at Adelaide in the State of South Australia, on the 29th day of September 2005, the 3rd, 4th, 5th and 6th days of October 2006, the 15th day of November 2006, and the 30th day of January 2007, by the Coroner's Court of the said State, constituted of Mark Frederick Johns, State Coroner, into the death of Yvonne Lillian Kent.

The said Court finds that Yvonne Lillian Kent aged 82 years, late of St Basil's Nursing Home, 83 Regency Road, Croydon Park died at the Royal Adelaide Hospital, North Terrace, Adelaide, South Australia on the 5th day of November 2004 as a result of multi organ failure from burns on a background of aortic stenosis and ischaemic heart disease. The said Court finds that the circumstances of her death were as follows:

1. Introduction and reason for Inquest

- 1.1. Yvonne Lillian Kent was 82 years old at the time of her death on 5 November 2004. Mrs Kent was a patient at the Royal Adelaide Hospital at the time of her death, having been admitted on 24 October 2004 for the treatment of burns sustained when her hot water bottle burst. No post mortem examination was conducted but Mrs Kent's treating doctor, Dr Porter, gave the cause of death as multi organ failure from burns on a background of aortic stenosis and ischaemic heart disease and I find accordingly.
- 1.2. On 20 October 2004 Mrs Kent was admitted to the St Basil's Nursing Home at Croydon. She had back pain and it was her practice to request that a hot water bottle be placed against her back to relieve the pain. On 24 October 2004 a member of the staff of St Basil's Nursing Home provided Mrs Kent with a hot water bottle at Mrs Kent's request. The hot water bottle was positioned between some cushions

upon which Mrs Kent was placed in a reclining position. The carer left the room and a very short time later heard Mrs Kent screaming. The carer, a Ms Bachleda, assisted Mrs Kent from the bed and noticed water on the bed clothes which appeared to have come from Mrs Kent's hot water bottle. The hot water bottle in question was noted to have a split along the length of the bottom seam.

- 1.3. Mrs Kent was taken to the Royal Adelaide Hospital. Her injuries consisted of burns resulting in blisters to her left arm, buttocks and back, approximately nine percent of her body. Within a few days Mrs Kent developed renal failure and a decision had to be made as to whether she should be treated aggressively. Mrs Kent had a number of co morbidities. She said that she did not want to go to Intensive care and be placed on a ventilator, an outcome that was likely if she underwent an operation. Mrs Kent stated that she wanted to have palliative care rather than aggressive treatment. Her condition gradually deteriorated and she died on 5 November 2004.
- 1.4. At the Inquest, I heard evidence from Ms Bachleda, who was Mrs Kent's carer, the Director of Nursing at St Basil's Homes, Ms Helen Soteriou, Ms Morag Horton from the Welland Chemplus Pharmacy, Sarah Van Der Wielen, Police Officer, Ron Somers from the Department of Health, Jan Savill, the daughter of Mrs Kent and Stuart Barnes, a Sales Director with McGloins Pty Ltd, an importer of hot water bottles.
- 1.5. Mrs Kent's medical conditions at the time of her death included psoriasis, aortic stenosis, osteoporosis with fractures, chronic pain, hypertension and a fractured neck of the femur. Her daughter, Janet Savill, stated that over the past ten years Mrs Kent suffered from osteoporosis. She was in chronic pain in the last few months of her life and was rarely out of pain. Her general practitioner would sometimes give her a Pethidine injection which would give her relief for a few hours but to use Mrs Savill's words:

'The pain she endured was horrific.'¹

Mrs Savill stated that as a result of this chronic pain Mrs Kent used a hot water bottle around the area of her back and particularly in the thoracic part of the spine. Mrs Kent had used hot water bottles for pain relief for some considerable time.

¹ Transcript, page 260

2. The hot water bottle

- 2.1. Some time was spent in the course of the Inquest in an attempt to identify the place of purchase of the hot water bottle, and the identity of its importer and or manufacturer. Inquiries conducted by the Department of Health produced some evidence to suggest that the hot water bottle may have been imported by McGloins Pty Ltd, and hence that company was granted leave to appear before the Inquest as an interested party. An employee of that company, Mr Stuart Barnes, gave evidence. There was some evidence to suggest that Mr and Mrs Kent may have purchased the hot water bottle from the Welland Chemplus Pharmacy, and accordingly evidence was given about the purchasing practices of that pharmacy by Mrs Horton, a Manager and Proprietor of that business. I do not propose to canvas the evidence in relation to the hot water bottle, its place of purchase and the identity of its importer because the evidence in relation to these matters did not establish clearly the identity of any of these.
- 2.2. It may be thought that it is a poor state of affairs when a person such as Mrs Kent can suffer fatal injuries as a result of the rupture of a rubber hot water bottle, and the identity of the manufacturer, importer and retailer of the hot water bottle cannot be established after extensive investigations and the conduct of an Inquest. Nevertheless, that is the position that was reached after all available evidence had been heard. In saying that, I make no criticism of the investigative efforts that were made in an attempt to establish these things. The simple fact is that hot water bottles are an inexpensive product and there is no legal requirement in Australia that an individual hot water bottle bear some form of marking from which it is possible to identify these things. I imagine that there would be many inexpensive products about which the same thing could be said; however, not all of them would have the potential to inflict fatal injuries such as those suffered by Mrs Kent.

3. The events of 24 October 2004 – evidence of Ms Bachleda

- 3.1. Ms Bachleda gave a statement in relation to Mrs Kent's death which was admitted as Exhibit C8 in these proceedings. She stated that she had been looking after Mrs Kent since Mrs Kent moved into St Basil's Nursing Home on 20 October 2004. Ms Bachleda said that her duties included assisting residents to the toilet, dressing and undressing, standing and sitting, walking and serving meals and drinks. Ms Bachleda was familiar with Mrs Kent's routine in relation to her hot water bottle to relieve backache. Ms Bachleda stated that at approximately 8:45pm on 24 October 2004 she

changed the water in Mrs Kent's hot water bottle because it had gone cold. Ms Bachleda stated in an interview conducted by Senior Constable Elliott² that she boiled the kettle and poured water directly from the kettle into the hot water bottle, filling the hot water bottle just under half full and then replacing the cap. She then tipped the hot water bottle upside down to make sure that the cap was on properly. At line 126 of the Record of Interview Ms Bachleda stated:

‘Then from what I can remember she was kind of sitting up and that’s when I tested where she wanted the hot water bottle. She showed me and that’s where I put it and then had a lot of pillows behind her so her back was a bit arched like she wasn’t directly on the hot water bottle but she was applying a bit of pressure to it honestly.’

3.2. In her oral evidence Ms Bachleda explained that Mrs Kent's pillows were placed behind her back in order to produce what Ms Bachleda described as a kind of “arch” into which Ms Bachleda slid the hot water bottle. Even though the pillows were surrounding the hot water bottle Ms Bachleda agreed that there would nevertheless been some sort of pressure applied to the bottle itself when Mrs Kent reclined³.

3.3. Ms Bachleda said that there was no pillow between the hot water bottle and Mrs Kent's back⁴. She also stated that if the positioning of the hot water bottle had not been suitable for Mrs Kent she had the capacity to reposition herself⁵. Ms Bachleda stated that there was a woollen cover over the hot water bottle⁶. She also stated that after the incident she observed the split along the bottom of the hot water bottle as the source of the leak⁷. Ms Bachleda stated that, although there was some pressure on the hot water bottle, she was concerned to ensure that the full weight of Mrs Kent's body was not resting upon the hot water bottle⁸. Ms Bachleda said that it would have taken perhaps 30 seconds to a minute from the time she positioned Mrs Kent in the manner described above until she heard Mrs Kent screaming. She stated that during this period before leaving Mrs Kent's room she asked Mrs Kent if she would like the bathroom light on, ensured that she was comfortable, and 30 seconds to a minute after positioning Mrs Kent:

‘As I was walking out the door, that’s when I heard the scream.’⁹

² Exhibit C8a

³ Transcript, page 15-16

⁴ Transcript, page 16

⁵ Transcript, page 18

⁶ Transcript, page 19

⁷ Transcript, page 19

⁸ Transcript, page 24

⁹ Transcript, page 24-25; Exhibit C.8a line 176

3.4. Ms Bachleda said before commencing work at St Basil's Nursing Home she was not familiar with the use of hot water bottles. She had no formal training at St Basil's in the use of hot water bottles (indeed the Director of Nursing at St Basil's, Ms Soteriou was not aware that hot water bottles were even being used at the Nursing Home)¹⁰. Ms Bachleda had never used a hot water bottle and she stated that she did talk to her parents about it and a few friends and observed one of the other staff filling up a hot water bottle. Therefore she described her training and knowledge in relation to the use of hot water bottles as being:

‘So just from observation and asking I determined what the correct procedure was to fill one up.’¹¹

3.5. Ms Soteriou, the Director of Nursing, gave evidence that immediately after the incident involving Mrs Kent's hot water bottle she caused a memorandum to be sent out to all staff telling them that the use of hot water bottles was to cease. Indeed Ms Soteriou found that hot water bottles were being used only by Mrs Kent and one other patient at the time of this incident¹². Subsequently, a formal policy was promulgated by St Basil's Nursing Home which is headed Policy H3 – Local Application of Heat Packs. A copy of the policy was admitted as Exhibit C11a in these proceedings. The policy specifically states that “the use and application of wheat packs and hot water bottles is banned from all St Basil's Homes (SA) sites”.

3.6. The hot water bottle which caused the fatal burns to Mrs Kent was tendered in evidence at the Inquest as Exhibit C9. The hot water bottle is in extremely poor condition. The evidence suggests that it has deteriorated considerably since 24 October 2004. Photographs depicting the hot water bottle that were taken at or about the time of the incident were admitted in evidence as Exhibit C11b in these proceedings. The hot water bottle as depicted in those photographs appears to be in much better condition, apart from the split along the bottom seam, than it was in at the date of the Inquest. The hot water bottle had been stored in the Exhibit Room at the Port Adelaide Police Station for much of the intervening period and it is likely that the conditions of storage were such that further deterioration occurred, possibly from exposure to light. The evidence at the Inquest was quite clear that the hot water bottle appeared to be in good condition at the time of its use on 24 October 2004. To the extent that the hot water bottle had deteriorated as at that date, I infer that the

¹⁰ See Exhibit C.11 lines 49-50

¹¹ See Exhibit C.8a

¹² See Exhibit C.11

deterioration was not visible upon the exterior of the hot water bottle. I note that at the Inquest it was possible to see a cracked appearance upon the interior surfaces of the hot water bottle. Of course, it is not possible to know whether that apparent abnormality was present in October 2004.

- 3.7. The hot water bottle shows a date of manufacturer by means of a “date daisy” imprinted upon the inside of the funnel at the top of the hot water bottle. From this daisy it is possible to determine that the hot water bottle was manufactured in the month of September 2002.
- 3.8. A considerable amount of evidence was adduced in relation to the possible purchase of the hot water bottle from the Welland Chemplus Pharmacy. Evidence was adduced as to the sourcing of hot water bottles sold at that Pharmacy. Of particular note was the very helpful evidence provided by Ms Horton, the proprietor of the Welland Chemplus Pharmacy, who gave evidence as to her purchasing practices, and her stock rotation practices within the pharmacy. These practices all complied with best practice stock rotation techniques, and, if the hot water bottle had been purchased at that pharmacy, I am confident that no damage or deterioration occurred to it as a result of its manner of storage. Much of this evidence was also devoted to establishing that the likely supplier of hot water bottles that were available for sale at the Welland Chemplus Pharmacy was McGloins Pty Ltd. There was evidence that four hot water bottles were purchased by or upon the account of Mr and Mrs Kent during July 2004. Two were purchased on 8 July 2004 and two more were purchased on 23 July 2004¹³. However, there was no evidence to establish that Exhibit C9, the hot water bottle involved in the fatal incident, was one of the hot water bottles purchased on either 8 July 2004 or 23 July 2004. Indeed, the evidence suggested that Mrs Kent had a number of hot water bottles, and that her husband was in the habit of disposing of the hot water bottles as they became old and unsuitable for further use. It did appear that a number of hot water bottles may have been in use in the Kent’s household in the months and years preceding Mrs Kent’s admission to St Basil’s Nursing Home. In these circumstances it would be unsafe and unfair to draw an inference that the Exhibit C9 was in fact purchased from the Welland Chemplus Pharmacy and was therefore a McGloins hot water bottle. I am not prepared to draw that inference on the state of the evidence.

¹³ Transcript, page 85

3.9. Evidence of the witness Mr Stuart Barnes, who is a sales Director with McGloins Pty Ltd, is to the effect that Exhibit C9 looks very similar to hot water bottles manufactured in a factory in China. Having regard to his evidence I think it likely that the hot water bottle Exhibit C9 would originally have been manufactured in China. However, it is impossible to determine who would have imported the hot water bottle into Australia and how it would have come to be sold to the Kent's before October 2004.

3.10. It is apparent from Exhibit C16c and the evidence of Dr Somers at T196¹⁴ that there is no Australian Standard specifically covering hot water bottles. It appears that, to the extent that there was any standard applicable to the manufacture of hot water bottles, that standard is the British Standard BS 1970:2001¹⁵. The standard as in force until March 2004 was tendered in evidence, or a copy thereof, as Exhibit C14d. A copy of the standard as in force after March 2004 was tendered as Exhibit C14e. I note that there is no difference between the two standards in relation to the minimum thickness of hot water bottles. Nor is there any difference in relation to the characteristics of rubber components, the strength of bonded or welded seams, and pressure testing. Each of the British Standards makes identical provision in respect of marking as follows:

‘Each hot water bottle shall be legibly and permanently marked with the number and date of this British Standard ie BS1970:2001 and, additionally, with the following in the form of a simple code:

- a) Name or trademark of the manufacturer or supplier;
- b) A date daisy (see figure 1) indicating:
 - year of manufacture;
 - month of manufacture (12 segments):
 - week of manufacture (marks within segments).’

Underneath there appears a diagram depicting a date daisy which I will not venture to describe

3.11. Each of the standards requires that a hot water bottle such as that involved in the present case, Exhibit C9, which is not designed to be completely filled, should be accompanied by at least the following instructions:

¹⁴ In this passage Dr Somers states that it is incorrect to say that there is no Australian Standard in respect of hot water bottles. However, Dr Somers is clearly saying that the appropriate standard to adopt in Australia is the British Standard in respect of hot water bottles, and he is not asserting that there is an Australian Standard.

¹⁵ Evidence of Dr Somers – Transcript, page 145

‘When filling this hot water bottle, do not use boiling water and fill to a maximum of two thirds capacity. Hold the bottle by the neck in an upright position and fill slowly to avoid hot water splashing back. Expel air from the bottle by lowering carefully onto a flat surface until water appears at the opening. Screw the stopper sufficiently tight to ensure that there is no leakage. Finger tight should be adequate.

Do not fill water from the domestic hot water system as this can prematurely degrade the product.

Prevent the bottle from contact with hot surfaces.

Prevent contact with oil and grease.

When not in use, drain completely and keep, with the stopper removed, in a cool, dry, dark place. Prevent exposure to sunlight. Do not place anything on top of the bottle.

Check the stopper for wear and damage at regular intervals.’

- 3.12. Both of the standards also require that a rubber hot water bottle such as Exhibit C9 should bear a clear and legible statement:

‘This hot water bottle is made of natural rubber.’

I note that Exhibit C9 bears such a statement.

- 3.13. Exhibit C9 does not appear to contain any marking, whether in a form of a code or otherwise, giving the name or trademark of the manufacturer or supplier. It does bear a daisy marker from which as I have already said, it is possible to determine that the hot water bottle was manufactured in the month of September 2002. The hot water bottle bears the British Standard 1970:2001 and therefore should, as required by that standard, comply with that standard. At least in relation to the bearing of a mark notifying the name or trademark of the manufacturer or supplier, the hot water bottle does not comply with the British Standard. It is however imprinted or embossed with the words:

‘Warning - hot water bottles can cause burns. Avoid prolonged direct contact with the skin.’

- 3.14. Counsel for McGloins Pty Ltd tendered a hot water bottle recently imported by that company into Australia. The hot water bottle was admitted as Exhibit C12. It was packaged in a clear plastic wrapper bearing the words of instruction for use that have already been referred to above. The hot water bottle itself contains an imprint of the British Standard, a statement that it is made of rubber, a daisy marker showing that it was made in 2006, the warning that a hot water bottle can cause burns and that prolonged direct contact with the skin should be avoided, and another marking – the

letters MH contained within a triangle – which may perhaps be a trademark from which the identity of the manufacturer or supplier may be ascertained.

- 3.15. It is unfortunate that Exhibit C9 did not contain any trademark or name upon the hot water bottle from which the identity of the manufacturer or supplier could be obtained. The original packaging material supplied with Mrs Kent's hot water bottle, Exhibit C9, was, not surprisingly, unavailable at the Inquest. Presumably it had long since been disposed of. This demonstrates the limitations of warnings place upon disposable packaging.
- 3.16. The evidence available at Inquest does not enable me to determine whether Exhibit C9 complied with the various requirements of the British Standard in relation to rubber strength and thickness and other characteristics.

4. Conclusion

- 4.1. Mrs Kent's tragic death was clearly preventable. It is apparent from the evidence of Ms Bachleda that at least two of the warnings required to be placed on wrappers accompanying hot water bottles were not observed on the last occasion on which Exhibit C9 was used for Mrs Kent. Contrary to the warning, boiling water was used to fill the hot water bottle. Contrary to the warning, Ms Bachleda did not expel the air from the bottle before tightening the stopper¹⁶. Had those two precautions been followed, it is possible the hot water bottle may not have ruptured in the manner that it did. Unfortunately, Ms Bachleda had not been provided with any proper training in relation to the use of hot water bottles by St Basil's Nursing Home. That is not altogether surprising, given that the Director of Nursing, Ms Soteriou, was not aware that hot water bottles were in use within the Nursing Home, and clearly regarded the use of hot water bottles as an outdated and inappropriate measure within the modern nursing home environment.
- 4.2. Nevertheless, it is clear that those in charge of St Basil's Nursing Homes should have maintained better scrutiny of those under their care than they did. It was always foreseeable that a resident of a nursing home might bring personal possessions into the home including hot water bottles. The owners and managers of St Basil's Nursing Homes had knowledge, at least vicariously through their employees, who were regularly filling Mrs Kent's hot water bottle for her, that Mrs Kent was using a hot

¹⁶ Transcript, page 16

water bottle. At least one other resident was also using a hot water bottle and I assume that the staff at the nursing home were assisting that resident in filling and placing that hot water bottle. Thus, St Basil's had vicarious knowledge of the use of a hot water bottle by another resident in addition to Mrs Kent. St Basil's had no method for communicating to their staff that hot water bottles should not be used, or if used, should be used safely. A policy prohibiting the use of hot water bottles was not introduced until after the tragic incident involving Mrs Kent. It is unfortunate, to say the least, that St Basil's Nursing Homes had not exercised a higher standard of scrutiny in relation to the use of potentially unsafe devices such as hot water bottles by their residents. Had they done so, this tragic incident may have been avoided.

- 4.3. I recommend, pursuant to section 25(2) of the Coroner's Act 2003, that the Minister for Consumer Affairs consider the promulgation of a public education campaign, particularly directed towards the elderly, warning of the dangers of the improper use of hot water bottles, including, but not necessarily limited to, the practice of filling hot water bottles directly from sources of boiling water, and failure to expel all air and steam from the hot water bottle before fixing the stopper.

Key Words: Aged Care; Burns; Hot water burns; Nursing home.

In witness whereof the said Coroner has hereunto set and subscribed his hand and

Seal the 30th day of January, 2007.

State Coroner