DRAFT REPORT

regarding

ENID SPURGIN (BJC/45)

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AT THE REQUEST OF: Hampshire Constabulary

CONTENTS

1. SUMMARY OF CONCLUSIONS

Mrs Spurgin was a relatively fit and independent 92 year old widow who lived alone. Whilst walking her dog, she fell and fractured her right hip which was surgically repaired using a dynamic hip screw on the 20th March 1999. Within hours of the surgery there was leakage from the wound and swelling of her right thigh to twice its normal size, causing discomfort and pain on palpation. It was considered most probable that she had developed a haematoma due to a bleeding vessel in the wound. Pain in Mrs Spurgin's hip/thigh on movement continued to be a problem noted by Dr Reid when he reviewed Mrs Spurgin on the 24th March 1999. Surgeon Commander Scott reviewed Mrs Spurgin but no specific comment was recorded in the medical notes regarding Mrs Spurgin's pain, no changes were made to her analgesia and on the 26th March 1999 she was transferred to Dryad Ward, Gosport War Memorial Hospital. With regards to the standard of care proffered to Mrs Spurgin in Haslar Hospital, the report of Mr Redfern raises several concerns.

During her admission to Dryad Ward, the medical care provided by Dr Barton and Dr Reid was suboptimal: there was a lack of clear, accurate, and contemporaneous patient records; inadequate assessment of Mrs Spurgin's condition; a lack of consultation with colleagues to seek appropriate advice and support; the use of diamorphine and midazolam in doses excessive to Mrs Spurgin's needs.

When Mrs Spurgin became less well, increasingly drowsy, dehydrated, agitated, spilling things and had a nightmare there was no medical assessment or even simple observations documented. Mrs Spurgin was

not anticipated to be dying and her symptoms and signs were in keeping with a potentially reversible septicaemia/toxaemia arising from an infection (the wound had become tender and inflamed despite the antibiotics) ± the effects of increasing blood levels of morphine metabolites due to dehydration. Potentially beneficial treatments (e.g. intravenous hydration, reduction in the dose of morphine, different antibiotics) were not proffered nor advice obtained from the orthopaedic team or a microbiologist. Instead a syringe driver containing diamorphine (equivalent to a 4–6 fold increase in her morphine dose) and midazolam was commenced. On a subsequent review by Dr Reid, as a result of finding Mrs Spurgin unresponsive, the diamorphine dose was halved, however the midazolam dose was doubled.

In short, Dr Barton in particular, but also Dr Reid, could be seen as doctors who breached the duty of care they owed to Mrs Spurgin by failing to provide treatment with a reasonable amount of skill and care. This was to a degree that disregarded the safety of Mrs Spurgin by failing to adequately assess her condition and taking suitable and prompt action when she complained of pain that appeared excessive to her situation and when her physical state deteriorated in what was a potentially reversible way. Instead the actions of Dr Barton and Dr Reid exposed Mrs Spurgin to the use of inappropriate doses of diamorphine and midazolam that would have contributed more than minimally, negligibly or trivially to her death. As a result Dr Barton and Dr Reid leave themselves open to the accusation of gross negligence.

2. INSTRUCTIONS

To examine the medical records and comment upon the standard of care afforded to the patient in the days leading up to her death against the acceptable standard of the day. Where appropriate, if the care is felt to be suboptimal, comment upon the extent to which it may or may not disclose criminally culpable actions on the part of individuals or groups.

3. ISSUES

3.1 Was the standard of care afforded to this patient in the days leading up to her death in keeping with the acceptable standard of the day?

3.2 If the care is found to be suboptimal what treatment should normally have been proffered in this case?

3.3 If the care is found to be suboptimal to what extent may it disclose criminally culpable actions on the part of individuals or groups?

4. BRIEF CURRICULUM VITAE

Dr Andrew Wilcock MB ChB, FRCP, DM, Reader in Palliative Medicine and Medical Oncology, University of Nottingham and Honorary Consultant Physician, Nottingham City Hospital NHS Trust.

Trained in general medicine, including experience in health care of the elderly (acute medicine and rehabilitation) prior to specialising in Palliative Medicine, working in Specialist Palliative Care Units in Nottingham and Oxford. Appointed to present post as Senior Lecturer in 1995. Promoted to Reader in 2001. Carries out research in pain, breathlessness and exercise capacity. Regularly lectures on national and international courses. Palliative care

prescribing advisor to the British National Formulary (2002-). Expert reviewer for Prodigy national palliative care guidelines for general practitioners. Joint author of the international Palliative Care Formulary that has sold over 90,000 copies, and the 3rd edition of Symptom Management in Advanced Cancer, with Dr Robert Twycross. Previously Chair of the Mid-Trent Cancer Services Network Palliative Care Group, Nottingham Cancer Centre Palliative Care Group, inaugural Secretary for the Science Committee of the Association for Palliative Medicine of Great Britain and Ireland and member of the National Institute for Clinical Excellence Lung Cancer Guidelines Development Group. Operates the international Palliative Medicine mailbase mailing list and co-owns and edits www.palliativedrugs.com that publishes the Palliative Care Formulary on the internet. With 20,000 members it is the largest Palliative Care resource of its kind. Provisional Member of the Expert Witness Institute.

5. DOCUMENTATION

This Report is based on the following documents:

[1] Full paper set of medical records of Enid Spurgin, including the medical certificate of cause of death.

[2] Full set of medical records of Enid Spurgin on CD-ROM.

[3] Operation Rochester Briefing Document Criminal Investigation Summary.

[4] Hampshire Constabulary Operation Rochester Guidance for Medical Experts.

[5] Hampshire Constabulary Summary of Care of Enid Spurgin.

[6] Palliative Care Handbook Guidelines on Clinical Management, Third

Edition, Salisbury Palliative Care Services (1995); Also referred to as the 'Wessex Protocols.'

[7] Portsmouth Health Care NHS Trust Policies:

i) Control of Administration of Medicines by Nursing Staff Policy (January 1997).

ii) Prescription Writing Policy (July 2000).

iii) Policy for Assessment and Management of Pain (May 2001).

iv) Compendium of Drug Therapy Guidelines, Adult Patients (1998).

v) Draft Protocol for Prescription Administration of Diamorphine by Subcutaneous Infusion, Medical Director (December 1999).

vi) Medicines Audit carried out by the Trust referred to as Document 54 on page 52 in the Chi Report (reference 6).

[8] General Medical Council, Good Medical Practice (July 1998).

[9] British National Formulary (BNF). Section on Prescribing in Terminal Care (September 1998).

[10] British National Formulary (BNF). Section on Prescribing in the Elderly (September 1998).

[11] Statement of Dr Jane Barton as provided to me by Hampshire Constabulary (undated).

[12] Statement of Dr Jane Barton RE. Enid Spurgin, 15th September 2005.

[13] Draft Report regarding Statement of Dr Jane Barton RE. Enid Spurgin (BJC/45), Dr A Wilcock, 5th January 2006.

[14] Draft overview of Enid Spurgin (BJC/45), Dr A Wilcock, 1st November 2005.

[15] Draft Report regarding Enid Spurgin, Mr D R M Redfern, 22nd January 2006.

6. CHRONOLOGY/CASE ABSTRACT

Events at Royal Haslar Hospital, 19th–26th March 1999

Mrs Spurgin, a 92 year old widow who lived alone, was admitted on the 19th March 1999 to Haslar Hospital having been pulled over by her dog onto her right hip resulting in a fracture (page 66 of 135).

Mrs Spurgin was considered 'basically well with no major medical problems' (page 68 of 135). Most of her past medical history was orthopaedic with fractures of her right patella, sternum (page 13 of 135), fifth metacarpal of her right hand (page 86 of 135), stress fracture left hip (page 37 of 51), crush fractures lumbar spine vertebrae (page 38 of 51), lumbar back ache, right hip pain, Pagets disease of the sacrum and right ilium, stress fracture right hip (page 44 of 51); a probable inferior myocardial infarction in 1989 (page 6 of 51), depression secondary to failing physical health in 1997 (page 171 of 175) and removal of a cataract in 1998 (page 153 of 175).

Mrs Spurgin's fracture was repaired surgically using a dynamic hip screw on the afternoon of the 20th March 1999 (page 75 of 135). Mrs Spurgin's pre-operative care raised concerns for the anaesthetist who reviewed her at 12.00h on the 20th March 1999 (page 68 of 135). On admission, she had been made 'nil by mouth' as she was possibly going to theatre the same day (page 68 of 135). This did not occur, but she remained nil by mouth and no intravenous fluids were administered. As a result Mrs Spurgin was likely to be dehydrated; she had not taken any fluid in nor passed urine for over 24h. The anaesthetist was also concerned Mrs Spurgin had received minimal analgesia and in addition to intravenous

fluids gave her morphine 2mg IV. On review 2h later the anaesthetist noted that Mrs Spurgin had passed urine, but also that she had hallucinated following the morphine (page 69 of 135). An outline of the sequence of events that led to Mrs Spurgin receiving inadequate fluid pre-operatively was given by Dr Woods (the SHO) later in the notes (page 80 of 135).

Mrs Spurgin's post-operative course was not straight forward. A review at 21.30h on the 20th March 1999 noted '+++ooze' (i.e. leakage) from the wound but only 40ml in the wound drain (page 69 of 135). Mrs Spurgin complained of discomfort in the leg and pain on palpation and her right thigh was noted to be twice the size of her left. It was considered most likely she had developed a haematoma. This is a collection of blood due to bleeding into the operation site. As the amount increases, the greater the swelling and, if in an enclosed space, the greater the pressure it exerts. The increasing pressure can lead to a compartment syndrome compressing blood vessels and damaging surrounding tissue and nerves (see technical issues). The reviewing doctor examined Mrs Spurgin with this in mind, noting two collections underneath the wound and checking the circulation and nerve function in the leg, which appeared to be satisfactory (page 79 of 135). The clinical impression formed by the doctor was that Mrs Spurgin may have a potential bleeding vessel in the wound (to explain why her leg had become rapidly so swollen), and that she was at risk of compartment syndrome (due to increasing pressure from the haematoma) and hypovolaemia (low blood volume; due to bleeding into the wound)(page 79 of 135). Mrs Spurgin's haemoglobin was reduced at 82g/L (normal range 105–160g/L), having being 122g/L on the day of admission

(page 67 of 135) which suggests she had lost a significant amount of blood as a result of the fracture, its repair and the bleed into the wound. Subsequently, Mrs Spurgin received a three unit blood transfusion on the 21st March 1999 which corrected her anaemia (haemoglobin 111g/L on 22nd March 1999; page 92 of 135).

On the 21st March 1999 concerns remained about Mrs Spurgin's hydration level due to her poor urine output. Her blood tests suggested that she was dehydrated (urea 13.3mmol/L, creatinine 136micromol/L; normal range 3.2–7.5 and 71–133 respectively; page 90 of 135). Her right hip was noted to be painful+++ and her thigh enlarged but there was no ooze from the wound (page 82 of 135). The nursing notes reported that Mrs Spurgin had a lot of pain on movement with a plan to give morphine before moving her (page 27 of 135).

On the 22nd and the 24th March 1999 Mrs Spurgin was reviewed on the wardround by Surgeon Commander Scott, whom I presume was the consultant responsible for her care. There was no specific mention of her painful swollen right thigh, but she was referred to Dr Lord for rehabilitation and a referral letter written in the notes (pages 82, 83 and 84 of 135). This noted that Mrs Spurgin was transfused with three units of blood, but 'has otherwise made a remarkable post-op recovery.' There is no mention of the haematoma, but it does go on to state '...she has proved quite difficult to get mobilised and her post-op rehabilitation may prove somewhat difficult. Additionally the quality of her skin, especially her lower legs is poor and at great risk of breaking down....' (page 83, 84 of 135). On the 23rd March 1999, the nursing notes reported that Mrs Spurgin had difficulty and pain++ with mobility (page 25 of 135).

Mrs Spurgin was reviewed by Dr Reid on the 24th March 1999 (pages 11 and 84 of 135). Dr Reid notes that Mrs Spurgin was '...previously well, but still in a lot of pain which is the main barrier to her mobilisation at present' and asked that her analgesia be reviewed. Dr Reid stated that he would be happy to take Mrs Spurgin to Gosport War Memorial Hospital provided that the orthopaedic team was satisfied that 'orthopaedically all is well with the right hip' (page 84 of 135). In his formal letter that followed, Dr Reid reported that prior to the fall Mrs Spurgin was 'very active and in good health' and repeated his concerns regarding Mrs Spurgin's hip, noting that 'the main problem was pain and swelling of the right thigh. Even a limited range of passive movement was painful. I was concerned about this and I would like to be reassured that all is well from an orthopaedic point of view' (page 11 of 135).

Surgeon Commander Scott reviewed Mrs Spurgin again on the 25th March 1999. It was noted that her right leg was increasingly swollen and that a haematoma had developed and broken down. It is unclear if 'broken down' relates to her wound breaking down as a result of the haematoma but dressing with jelonet and elevation were recommended (page 85 of 135). Commander Surgeon Scott considered that Mrs Spurgin could go to Gosport War Memorial Hospital but to warn them that her skin required great care (page 85 of 135). The nursing notes reported that Mrs Spurgin had had a settled evening and mobilised to the commode with two staff. Mrs Spurgin was transferred the following day on the 26th March 1999 (pages 25 and 26 of 135).

Mrs Spurgin's analgesia consisted of morphine and paracetamol p.r.n. 'as required'; she received morphine 5mg IM at 19.15h and 23.00h on the 20th

March 1999 and at 11.15h on the 21st March 1999 (page 38 of 135). Paracetamol 1G was taken on the following dates (number of doses): 19th (one); 21st (two), 22nd (two), 24th (one) and 25th March 1999 (one) (page 38 of 135).

Events at Dryad Ward, 26th March 1999 until 13th April 1999.

26th March 1999

The nursing transfer note written by Royal Haslar Hospital for Dryad Ward noted that Mrs Spurgin was mobile from bed to chair with two nurses and could walk short distances with a zimmer frame; she was continent during the day but occasionally incontinent at night; the skin on her lower legs was paper thin; her right lower leg was very swollen and needed elevating and there was a small break on the posterior aspect that had been steri-stripped. She needed encouragement with eating and drinking but could manage independently. No drugs were included as she was only on paracetamol p.r.n. 'as required' (page 20 of 175).

The medical note entry reports Mrs Spurgin's fracture of the right femur on the 19th March 1999, nil of significance in her past medical history and that she was non-weight bearing, had tissue paper skin and was not continent. The plan was to 'sort out her analgesia' (page 24 of 175).

The drug chart reveals that Mrs Spurgin was prescribed oral morphine (Oramorph) 5–10mg p.r.n. and also regularly: 5mg every 4h (at 06.00, 10.00, 14.00, 18.00h) and 10mg at 22.00h along with lactulose (a laxative) 10ml twice a day (pages 123 and 125 of 175).

Blood tests were undertaken which revealed a mild anaemia (haemoglobin 10.1g/dL; page 46 of 175) and elevated urea of 9.5mmol/L (normal 3.0–

7.6mmol/L; page 40 of 175). Swabs from her nose, throat, axillae, groins and wound, probably as a routine, were taken to screen for Methicillin resistant staphylococcus aureus (MRSA) and were all negative (pages 32 and 58 of 175).

The nursing summary notes record that Mrs Spurgin had been admitted 'for rehabilitation and gentle mobilisation.' Despite the information in the transfer letter from Haslar Hospital, on Dryad Ward her transferring had been difficult; Mrs Spurgin had complained of a lot of pain for which she was given oral morphine regularly 'with effect' (page 106 of 175). Her 'very dry tissue paper skin' in the lower legs, the small break on back of right calf, and her swollen legs were noted (page 106 of 175). A nursing care plan for Mrs Spurgin's wounds, specifies only that her right leg was swollen and oedematous (page 88 of 175). A handling profile reported pain in the right hip (page 102 of 175).

A nursing care plan was produced for 'Enid is experiencing a lot of pain on movement' and listed the nursing action as 'give prescribed analgesia and monitor effect; position comfortably and seek advice from physiotherapists regarding moving and mobilising' (page 84 of 175).

The nursing care plan for 'Enid requires assistance for settling for the night' noted that she used the slipper bed pan but had difficulty in moving; slept for long periods; Oramorph given as boarded for pain in hip' (pages 80 and 81 of 175).

The nursing summary for the night reported 'requires much assistance with mobility at present due to pain/discomfort. Oramorph 10mg given 23.15h and 5mg at 06.00h' (page 106 of 175).

27th March 1999

The nursing notes reported that it required two nurses to transfer Mrs Spurgin (page 114 of 175) and despite regular Oramorph, Mrs Spurgin was still in pain (page 84 of 175).

The drug chart shows that the regular oral morphine was increased to 10mg every 4h (at 06.00, 10.00, 14.00, 18.00h) and 20mg at 22.00h (page 125 of 175).

28th March 1999

The nursing notes reported that Mrs Spurgin had been vomiting with the Oramorph. Dr Barton advised to stop the Oramorph and Mrs Spurgin received metoclopramide (an anti-emetic) and codydramol for pain relief instead (pages 84 and 85 of 175).

The drug chart shows that the last oral morphine dose was at 10.00h and that codydramol 2 tablets 4 times a day (a total of dihydrocodeine 80mg and paracetamol 4G/24h) were commenced at 18.00h and taken regularly until the 31st April 1999 (page 125 of 175). Metoclopramide (an anti-emetic) 10mg three times a day was also commenced and taken intermittently until the 11th April 1999 (page 134 of 175).

29th March 1999

The nursing notes recorded a request for Mrs Spurgin's analgesia to be reviewed (page 85 of 175) and a mobility evaluation indicated that she required two nurses to move around the bed, a hoist to get in and out of bed and was unable to walk (page 103 of 175).

The drug chart shows that senna (a laxative) 2 tablets at night were commenced and taken until the 10th April 1999 (page 134 of 175).

30th March 1999

The nursing notes record that the steristrips on Mrs Spurgin's surgery wound were removed. A dressing was applied to one small area near top that was oozing slightly (page 89 of 175).

31st March 1999

The nursing notes record that Mrs Spurgin was commenced on modified release morphine (MST) 10mg twice a day. She walked with the physiotherapist in the morning but was in a lot of pain (page 85 of 175). Oramorph 5mg was given for pain relief at 13.15h with 'not too much effect' (pages 85 and 123 of 175). Mrs Spurgin slept well (page 81 of 175). The drug chart records the commencement of MST 10mg twice a day until the 6th April 1999 (page 134 of 175).

1st April 1999

The nursing notes record that Mrs Spurgin was seen by the physiotherapist and that the recommendation was that she remain on her bed rather than in a chair over the Easter holiday but to walk with a zimmer frame once or twice a day (page 85 of 175). The physiotherapy report specifies that Mrs Spurgin should walk twice a day with a gutter frame (page 96 of 175). Mrs Spurgin was noted to have pain on movement (page 85 of 175). Her right hip wound was 'oozing large amounts of serous fluid

and some blood' from a hole in the wound 1–1.5cm long. This was steristripped but continued to ooze (page 81 of 175).

2nd April 1999

The nursing notes record that a different type of dressing (Granuflex) was applied to the wound on Mrs Spurgin's right calf as her leg was oedematous (swollen) (page 89 of 175).

3rd April 1999

The nursing notes record that the MST 10mg twice a day continued and that Mrs Spurgin continued to complain of pain on movement (page 85 of 175).

4th April 1999

A nursing care plan was commenced for Mrs Spurgin's right hip wound 'oozing serous fluid and blood. Steristrip in-situ at present' (pages 86 and 87 of 175). On the same day, the dressings were renewed, no new leakage was seen, the steristrip was intact and a dry dressing reapplied (page 87 of 175).

6th April 1999

The nursing notes record that swabs to test for the presence of infection were taken from the from right hip and right calf wounds. The dressing was removed off the hip wound and left uncovered. The calf wound was leaking and redressed (page 87 of 175). Subsequently, the calf wound cultured the bacterium staphylococcus aureus, sensitive to the antibiotics

erythromycin, flucloxacillin and penicillin. This result was available on the 9th April 1999 (page 52 of 175).

The nursing summary notes record that Mrs Spurgin was seen by Dr Barton and that the MST was increased to 20mg (page 106 of 175). Mrs Spurgin's nephew visited who offered to employ a live-in carer for when she was discharged home (as she was adamant about not going to a nursing home). Mrs Spurgin had been incontinent of urine a few times and the use of a catheter discussed (pages 106 and 107 of 175).

The drug chart shows the increase in the MST to 20mg twice a day which continued until 20.00h on the 11th April 1999 (page 134 of 175).

7th April 1999

The nursing notes reported that Mrs Spurgin's hip wound was red and inflamed and she was seen by Dr Barton and commenced on antibiotics (metronidazole 400mg and ciprofloxacin 500mg both twice a day)(pages 89 and 107 of 175). She was later reviewed by Dr Reid who noted that Mrs Spurgin was still in a lot of pain and very apprehensive. Her MST had been increased to 20mg twice a day yesterday. He prescribed flupenthixol and requested an X-ray of the right hip to be done, as movement was still quite painful and the right leg was 2 inches shorter than the left (page 24 of 175).

The drug chart shows prescriptions for a five day course of antibiotics (ciprofloxacin and metronidazole; page 134 of 175) and the flupenthixol 0.5mg twice a day, given until the 11th April 1999 (page 8 of 175).

8th April 1999

The nursing notes reported that Mrs Spurgin's wound was oozing slightly overnight but that the redness at the edges of the wound was subsiding (page 87 of 175).

9th April 1999

The nursing notes reported that Mrs Spurgin was to remain on bed rest until Dr Reid saw the X-ray of her hip (page 85 of 175). It was noted that Mrs Spurgin had spilt two drinks in bed and had had a nightmare early morning (page 81 of 175). Because of episodes of urinary incontinence and being 'very distressed when put on to commode earlier today' Mrs Spurgin agreed to have a catheter inserted at 19.30h which drained 500ml overnight (page 115 of 175).

10th April 1999

The nursing notes reported that the catheter was draining 'concentrated urine – small amount. Enid not drinking despite encouragement and help'. Mrs Spurgin spilt her drink prior to settling and had a 'very poor night (page 81 of 175).

11th April 1999

The nursing notes recorded that Mrs Spurgin 'appears to be leaning to the left. Does not appear to be as well and experiencing difficulty in swallowing. Stitch line inflamed and hard area. Complaining of pain on movement and around stitch line. Oramorph 5mg given at 07.15h' (pages 81, 85 and 123 of 175). Other entries report 'commenced antibiotics a few

days ago, wound not leaking today but hip feels hot and Enid complaining of tenderness all around site. Enid very drowsy and irritable' (page 87 of 175); 'Condition ill. Tolerating sips of oral fluids. Not anxious to be moved in any way. Did settle for long periods' (page 83 of 175). A bladder washout was performed due to leakage (I assume bypassing) of dark concentrated urine. It was flushed without problem and 'very little drainage' was noted at 17.00h (page 115 of 175).

The nursing summary notes record that Mrs Spurgin's nephew was telephoned at 19.10h as Enid's condition had deteriorated over the afternoon; '....She is very (the nurse's emphasis) drowsy - unrousable at times. Refusing food and drink and asking to be left alone. Site around wound in right hip looks red and inflamed and feels hot. Asked about her pain, Enid denies pain when left alone but complaining when moved at all. Syringe driver possibility discussed with nephew who is anxious that Enid be kept as comfortable as possible. He will telephone ward later this evening. Seen by Dr Barton to commence syringe driver' (page 107 of 175). However, in her statement, Dr Barton believes this last point refers to her seeing Mrs Spurgin on the morning of 12th April 1999.

12th April 1999

The nursing notes reported that Mrs Spurgin's condition 'remains ill. Urine very concentrated. Syringe driver satisfactory. Appears to be in some discomfort when attended to. Breathing very shallow' (page 83 of 175).

Mrs Spurgin was seen by Dr Reid who made an entry into the medical notes 'now very drowsy (since diamorphine infusion established) – reduce

to 40mg/24h – if pain recurs increase to 60mg. Able to move hip without pain but patient not rousable!' (Dr Reid's emphasis)(page 24 of 175).

The nursing summary notes also recorded the decisions taken on the wardround and that Mrs Spurgin's nephew had been spoken to and was aware of the situation (page 108 of 175).

The drug chart shows that Mrs Spurgin was prescribed, on the regular prescription part of the drug chart, diamorphine 20–200mg, midazolam 20–80mg, hyoscine (hydrobromide) 200–800microgram (marked p.r.n. in the margin) and cyclizine (an anti-emetic) 50–100mg (marked p.r.n. in the margin) all SC/24h (page 131 of 175). A syringe driver was commenced at 08.00h containing diamorphine 80mg/24h and midazolam 20mg/24h (page 131 of 175). It was altered at 16.40h to one containing a reduced dose of diamorphine 40mg/24h and an increased dose of midazolam 40mg/24h (page 131 of 175).

13th April 1999

An entry was made at 01.15h confirming that Mrs Spurgin had died (pages 24 and 83 of 175).

On the death certificate, the cause of death was given as 1a Cerebrovascular accident, with an onset of 48h prior to death.

7. TECHNICAL BACKGROUND / EXAMINATION OF THE FACTS IN ISSUE

i) Syringe drivers, diamorphine, midazolam and hyoscine hydrobromide

A syringe driver is a small portable battery-driven pump used to deliver medication subcutaneously (SC) via a syringe, over 24h. Indications for its use include swallowing difficulties or a comatose patient. In the United Kingdom, it is commonly used in patients with cancer in their terminal phase in order to continue to deliver analgesic medication. Other medication required for the control other symptoms, e.g. delirium, nausea and vomiting can also be added to the pump.

Diamorphine is a strong opioid that is ultimately converted to morphine in the body. In the United Kingdom, it is used in preference to morphine in syringe drivers as it is more soluble, allowing large doses to be given in very small volumes. It is indicated for the relief of pain, breathlessness and cough. The initial daily dose of diamorphine is usually determined by dividing the daily dose of oral morphine by 3 (BNF number 36 (September 1998)). Others sometimes suggest dividing by 2 or 3 depending on circumstance (Wessex protocol). Hence, 60mg of morphine taken orally a day could equate to a daily dose of 20 or 30mg of diamorphine SC. It is usual to prescribe additional doses for use 'as required' in case symptoms such as pain breakthrough. The dose is usually 1/6th of the 24h dose. Hence for someone receiving 30mg of diamorphine in a syringe driver over 24h, a breakthrough dose would be 5mg. One would expect it to have a 2–4h duration of effect, but the dose is often prescribed to be given hourly if required. As the active metabolites of morphine are excreted by the kidneys, caution is required in patients with impaired kidney function.

Midazolam is a benzodiazepine, a diazepam like drug. It is commonly used in syringe drivers as a sedative in patients with terminal agitation. Sedation can be defined as the production of a restful state of mind. Drugs that sedate will have a calming effect, relieving anxiety and tension. Although drowsiness is a common effect of sedative drugs, a patient can be sedated without being drowsy. Most practitioners caring for patients with cancer in their terminal phase would generally aim to find a dose that improves the patients' symptoms rather than to render them unresponsive. In some patients however, symptoms will only be relieved with doses that make the patient unresponsive. A typical starting dose for an adult is 30mg a day. A smaller dose, particularly in the elderly, can suffice or sedate without drowsiness. The BNF (September 1998) recommends 20–100mg SC over 24h. The Wessex protocol suggests a range with the lowest dose of 5mg a day. The regular dose would then be titrated every 24h if the sedative effect is inadequate. This is generally in the region of a 33–50% increase in total dose, but would be guided by the severity of the patients symptoms and the need for additional 'as required' doses. These are generally equivalent to 1/6th of the regular dose, e.g. for midazolam 30mg in a syringe driver over 24h, the 'as required' dose would be 5mg given as a stat SC injection. The duration of effect is generally no more than 4h, and it may need to be given more frequently. As an active metabolite of midazolam is excreted by the kidneys, caution is required in patients with impaired kidney function.

Hyoscine hydrobromide is an antimuscarinic drug most commonly given to reduce excessive saliva or retained secretions ('death rattle'). It also has anti-emetic, antispasmodic (smooth muscle colic) and sedative properties.

Repeated administration can lead to cummulation and this can occasionally result paradoxically in an agitated delirium, highlighted in both in the BNF and the Wessex protocol (page 41). It is usually given in a dose of 600–2400microgram SC over 24h (BNF (September 1998)) or 400–600microgram as a stat SC dose. The Wessex protocol gives a dose range of 400–1200microgram over 24h.

The titration of the dose of analgesic or sedative medication is guided by the patients symptom control needs. The number and total dose of 'as required' doses needed over a 24h period are calculated and this guides the increase necessary in the regular dose of the drugs in the syringe driver in a way that is proportional to the patients needs. The ideal outcome is the relief of the symptoms all of the time with no need for additional 'as required' doses. In practice, this can be difficult to achieve and the relief of the symptoms for the majority of the time along with the use of 1–2 'as required' doses over a 24h period is generally seen as acceptable.

ii) The principle of double effect

The principle of double effect states that:

'If measures taken to relieve physical or mental suffering cause the death of a patient, it is morally and legally acceptable provided the doctor's intention is to relieve the distress and not kill the patient.'

This is a universal principle without which the practice of medicine would be impossible, given that every kind of treatment has an inherent risk. Many discussions on the principle of double effect have however, involved the use of morphine in the terminally ill. This gives a false impression that the use of morphine in this circumstance is a high risk strategy. When

correctly used (i.e. in a dose *appropriate* to a patient's need) morphine does not appear to shorten life or hasten the dying process in patients with cancer. Although a greater risk is acceptable in more extreme circumstances, it is obvious that effective measures which carry less risk to life will normally be used. Thus, in an extreme situation, although it may occasionally be necessary (and acceptable) to render a patient unconscious, it remains unacceptable (and unnecessary) to cause death deliberately. As a universal principle, it is also obvious that the principle of double effect does not allow a doctor to relinquish their duty to provide care with a reasonable amount of skill and care.

iii) Compartment syndrome.

See also the report by Mr Redfern.

Thick layers of tissue called fascia separate groups of muscles in the leg into different compartments. There is limited scope for expansion within a compartment, and a significant swelling, such as a large haematoma, will lead to an increase in pressure, compressing the surrounding muscles, blood vessels and nerves. If the pressure builds sufficiently, the blood flow to the tissues is reduced and this can lead to permanent injury to the muscle and nerves. The hallmark symptom of compartment syndrome is severe pain that does not respond to elevation or pain medication. There may also be:

- tense, swollen and shiny skin overlying the limb
- severe pain when the muscle is moved actively or passively
- pain when the compartment is squeezed.

In more advanced cases, there may be:

- decreased sensation

- muscle weakness
- pallor of the skin.

8. OPINION

Events at Royal Haslar Hospital, 19th–26th March 1999

Mrs Spurgin was a relatively fit and independent 92 year old widow who lived alone. She underwent surgical repair of a fractured right hip using a dynamic hip screw. Mrs Spurgin's post-operative course was not straight forward; within hours of her surgery she had to be reviewed because of leakage from the wound and swelling of her right thigh to twice its normal size, causing discomfort and pain on palpation. It was considered most probable that she had developed a haematoma due to a bleeding vessel in the wound. A large haematoma can exert a pressure effect, compressing blood vessels and damaging surrounding tissue and nerves. The reviewing doctor appropriately examined Mrs Spurgin with this in mind, checking the circulation and nervous function in her leg, which appeared satisfactory. Pain in Mrs Spurgin's hip/thigh on movement continued to be recorded as a problem in the nursing notes and by Dr Reid when he reviewed Mrs Spurgin on the 24th March 1999. He considered the pain the main barrier to rehabilitation, asked for her analgesia to be reviewed and to be reassured that orthopaedically all was well with her hip. Surgeon Commander Scott reviewed Mrs Spurgin several times between the 22nd–25th March 1999 but no specific comment was recorded in the medical notes regarding Mrs Spurgin's pain, no changes were made to her analgesia but on the 25th March she was considered able to be transferred to Gosport War Memorial Hospital once a bed was available. Despite pain

being recorded as a problem, at no point did Mrs Spurgin receive regular analgesia; three doses of morphine given as required within the first 24h of her surgery and subsequently, only paracetamol as required, at most 2G in 24h. One explanation for this apparent discrepancy would be that Mrs Spurgin was relatively comfortable at rest and only experiencing significant pain on movement and/or weight bearing.

With regards to the standard of care proferred to Mrs Spurgin during her admission to Haslar Hospital, I am not experienced enough in orthopaedics to comment, but the report of Mr Redfern raises several concerns.

Events at Dryad Ward, 26th March 1999 until 13th April 1999.

Infrequent entries in the medical notes during Mrs Spurgin's stay on Dryad Ward make it difficult to closely follow her progress over the last eighteen days of her life. There are three entries prior to the confirmation of death, taking up one page in length. In summary and approximate chronological order, Mrs Spurgin was admitted to Dryad Ward for rehabilitation and gentle mobilisation. It was noted that Mrs Spurgin complained of a lot of pain on movement for which she was commenced on regular oral morphine. Despite this there was no mention of pain nor a formal pain assessment in the medical clerking. Mrs Spurgin initially was prescribed a total of 30mg/24h of oral morphine regularly. This was increased the next day to 60mg/24h and was the probable cause of her nausea and vomiting. The response to Mrs Spurgin's vomiting appears nonsensical; if it were that her pain was considered severe enough to warrant morphine regularly, the addition of a regular anti-emetic would be seen as an appropriate response. Instead the morphine was substituted for the weaker

analgesic codydramol. Because of continued pain on movement, the codydramol was substituted three days later for oral morphine again, now in a modified release preparation (MST) in a dose of 20mg/24h, subsequently increased to 40mg/24h. Mrs Spurgin's hip wound began to leak large amounts of serous fluid and blood. This initially improved with steristrips but on the 7th April 1999 it was red and inflamed and antibiotics (metronidazole and ciprofloxaxin) commenced. Although the use of antibiotics was appropriate for a possible wound infection, it was not, in my experience, a typical combination used for a post-operative wound infection. Dr Reid reviewed Mrs Spurgin and found that movement of the right leg was still painful. It was now 18 days after Mrs Spurgin's operation and a progressive improvement in pain and mobility can generally be anticipated. This was not the case for Mrs Spurgin and Dr Reid was concerned enough to ask for an X-Ray and it should be confirmed if this was undertaken or not and, if so, the result found. However, an orthopaedic assessment was not sought. Because Mrs Spurgin was 'apprehensive' Dr Reid commenced flupenthixol 0.5mg twice a day. I am unfamiliar with the use of flupenthixol (an antipsychotic) for managing anxiety in the elderly.

The pain on movement did not improve although Mrs Spurgin denied pain when left alone. Mrs Spurgin became less well; she spilt drinks and had a nightmare. She was noted to be very drowsy – unrousable at times, irritable, leaning to the left and experiencing difficulty in swallowing. The wound was inflamed, hot and tender. She was catheterised but drained only small amounts of concentrated urine. The exact cause of Mrs Spurgin's deterioration is unclear as no medical assessment was undertaken. Even simple observations like temperature, heart rate and blood pressure were not carried

out. However, in my opinion, her situation could be consistent with septicaemia from an infection despite her current antibiotics ± cummulation of morphine metabolites as she became dehydrated. Even in her statement, Dr Barton anticipates that Mrs Spurgin's drowsiness was a consequence of her infection (point 40).

On the 12th April 1999, a syringe driver was commenced containing diamorphine 80mg/24h. This is equivalent to oral morphine 160–240mg/24h and thus represents a 4–6 fold increase Mrs Spurgin's dose of morphine. There is no apparent justification for an increase of this magnitude in the dose of analgesia, and, in my opinion, was excessive to Mrs Spurgin's needs. This would explain why Dr Reid noted Mrs Spurgin to have been very drowsy since the diamorphine infusion was commenced (he states she was not rousable! (his emphasis)) and why he was able to move her hip without pain. The syringe driver also contained midazolam 20mg/24h, a dose likely to sedate a 92 year old. Given that the major risk of excessive opioid is respiratory depression, in an unrousable patient, it would have been reasonable for a doctor to have assessed respiratory function, e.g. respiratory rate and the level of oxygen saturation in the blood (pulse oximetry). If there was evidence of respiratory depression, discontinuation of the opioid and careful use of the opioid antagonist naloxone to partially reverse the effects of the opioid would have been indicated to rouse the patient and restore satisfactory ventilation. Even if naloxone was not deemed necessary, other practitioners would stop the opioid until the patient was more awake, and subsequently restart at a lower dose. Others may continue the opioid but at a lower dose. Although Dr Reid halved the diamorphine dose to 40mg/24h, this was still equivalent to oral morphine 80–120mg/24h, i.e. a 2–3 fold increase on Mrs Spurgin's previous

dose. In my opinion, given Mrs Spurgin's dose of oral morphine 40mg/24h, using a 2:1 or 3:1 conversion ratio, an appropriate starting dose of diamorphine would have been 15–20mg/24h. Further, there was a simultaneous increase in the midazolam to 40mg/24h, a dose that in my opinion would sedate a 92 year old. In this regard, despite the reduction in opioid, the increase in midazolam would have contributed to Mrs Spurgin remaining sedated until her death at 01.15h on the 13th April 1999.

The cause of death was given as a cerebrovascular accident. The clinical evidence on which this is based should be clarified. In her statement, Dr Barton suggests 'the reference to her leaning to the left raised the possibility that Mrs Spurgin might have had a cerebrovascular accident'. However, on its own, this is a non-specific finding which could occur in an elderly patient with a reduced level of consciousness due to any cause. If it were strongly considered that Mrs Spurgin had had a cerebrovascular accident, one would expect that this significant change in her clinical condition to have been recorded in the medical notes and accompanied by a medical assessment. In my opinion, the circumstances of Mrs Spurgin's deterioration and death are not typical of a cerebrovascular accident and thus there is a lack of sufficient supporting clinical evidence and certainty that a cerebrovascular accident was the most likely cause of her death.

Was the standard of care afforded to this patient in the days leading up to his death in keeping with the acceptable standard of the day?

The overall care given to Mrs Spurgin whilst at Haslar Hospital has raised concerns as detailed in the report by Mr Redfern.

The medical care provided by Dr Barton and Dr Reid to Mrs Spurgin following her transfer to Dryad Ward, Gosport War Memorial Hospital is suboptimal when compared to the good standard of practice and care expected of a doctor outlined by the General Medical Council (Good Medical Practice, General Medical Council, July 1998, pages 2–3) with particular reference to:

- good clinical care must include an adequate assessment of the patient's condition, based on the history and clinical signs and, if necessary, an appropriate examination
- in providing care you must keep clear, accurate, and contemporaneous patients records which report the relevant clinical findings, the decisions made, the information given to patients and any drugs or other treatment prescribed
- in providing care you must prescribe only the treatment, drugs, or appliances that serve patients' needs
- in providing care you must be willing to consult colleagues.

Specifically:

i) The notes relating to Mrs Spurgin's transfer to Dryad Ward are inadequate. On admission, a patient is usually clerked highlighting in particular the relevant history, examination findings, planned investigations and care plan.

ii) There was insufficient assessment and documentation of Mrs Spurgin's pain and its treatment.

iii) An orthopaedic opinion was not sought even when the pain did not improve with time or increasing doses of morphine that were associated with undesirable effects.

iv) An appropriate medical assessment was not undertaken when Mrs Spurgin deteriorated, becoming more drowsy and her wound more painful and inflamed.

v) Doses of diamorphine and midazolam that were excessive to her needs were administered.

If the care is found to be suboptimal what treatment should normally have been preferred in this case?

In relation to the above:

Issue i (lack of clear documentation that an adequate assessment has taken place)

A medical assessment usually consists of information obtained from the patient or others and existing medical records (the history), and the findings of a physical examination that is documented in a structured fashion. Although the history can be restricted to the most salient points, it is unusual to omit relevant sections, e.g. a basic physical examination, etc.

Clerking of a patient also provides a baseline for future comparison. If new problems subsequently develop, and abnormal physical findings are found on examination, it can be helpful for the doctor when considering the differential diagnosis and management to know if the findings are really new or old. A clear assessment and documentation of subsequent medical care are particularly useful for on-call doctors who may have to see a patient, whom they have never met, for a problem serious enough to require immediate attention.

Issue ii (lack of clear documentation that an adequate assessment has taken place; lack of clear, accurate, and contemporaneous patients records which report drugs prescribed; prescribing only the treatment, drugs, or appliances that serve patients' needs)

Part of the plan outlined by Dr Barton was to sort out Mrs Spurgin's analgesia. Particularly when pain relief is considered such a prominent part of the care plan for a patient, it would be considered good practice to take and document a full pain history and undertake an appropriate examination. This is to help diagnose the most likely cause of the pain and thus guide a rational and appropriate management plan.

Dr Barton considered Mrs Spurgin unable to weight bear and that her pain to require regular morphine. This was in contrast to the transfer note, written on the same day of transfer, which recorded Mrs Spurgin to be mobile with help and requiring only p.r.n. 'as required' paracetamol. There is no documented history or examination which suggests that the possible reasons for this apparent increase in pain were considered. This is relevant, because, if increasing pain was associated with a wound infection for example, this would require appropriate antibiotics rather than morphine. Further, given that pain generally improves quickly and progressively in patients who have undergone surgical repair of their fractured neck of femur, the need to commence strong opioid analgesia for severe pain one week post-operatively should have been a particular prompt to have undertaken a thorough assessment.

It is unclear on what basis Dr Barton considered that regular morphine was necessary, rather than initially trying a regular weak opioid ± paracetamol. In general, practitioners progressively increase the strength of regular analgesia and the dose against the patients pain, in the order non-opioid (e.g.

paracetamol) → weak opioid (e.g. codeine) → strong opioid (e.g. morphine). Although some may omit the weak opioid step and go straight to a strong opioid, this usually involves a smaller initial dose of morphine (e.g. 20–30mg/24h). Although the starting dose of morphine and its increase prescribed by Dr Barton were in keeping with the BNF, in the context of omitting a regular weak opioid step and in view of Mrs Spurgin's advanced age, it would have been prudent in my opinion to have used a smaller dose. Mrs Spurgin's nausea and vomiting could be in keeping with the doses she received being excessive, although up to half of patients can experience nausea and vomiting when commencing morphine.

Issue iii (in providing care you must be willing to consult colleagues)

Because of Mrs Spurgin's nausea and vomiting, the morphine was discontinued and she received regular codydramol for about 3 days. However, because of persistent pain, Dr Barton recommenced a smaller dose of morphine. This was 11 days after Mrs Spurgin's operation and this level of pain and analgesic requirement should have prompted a search for the cause of the pain. In this regard there is no evidence that Dr Barton considered, examined Mrs Spurgin or documented the possible reasons why Mrs Spurgin's pain was so problematic, discussed her with Dr Reid or the orthopaedic team. Similarly, when the morphine was increased to 40mg/24h, 17 days after Mrs Spurgin's operation, neither Dr Barton nor Dr Reid contacted the orthopaedic team. An X-ray was apparently requested, but I am unable to ascertain if it was carried out.

Finally, it should be ascertained if the choice of ciprofloxacin and metronidazole for a post-operative (orthopaedic) wound infection was in

keeping with Trust guidelines, and, if not, why the advice of a microbiologist was not obtained.

Issue vi ((lack of clear documentation that an adequate assessment has taken place; lack of clear, accurate, and contemporaneous patients records which report drugs prescribed; in providing care you must be willing to consult colleagues)

Mrs Spurgin became less well, increasingly drowsy, dehydrated, agitated, spilling things and had a nightmare. When a patients' clinical condition changes for the worse, a thorough medical assessment should be carried out to ascertain the possible cause(s) and to identify if they are reversible with appropriate treatment. The assessment would consist of the history, examination and appropriate investigation. There is no assessment or even simple observations documented. This is relevant, as in my opinion, Mrs Spurgin was not anticipated to be dying and her symptoms and signs were in keeping with a potentially reversible septicaemia/toxaemia arising from an infection (the wound had become tender and inflamed despite the antibiotics) ± the effects of increasing blood levels of morphine metabolites; even though the morphine dose had not been increased, in dehydration morphine metabolites cumulate as if the dose of morphine had been increased. Intravenous hydration, reduction in the dose of morphine and different antibiotics may well have been of benefit to Mrs Spurgin and it should be ascertained why these were not considered appropriate. Particularly the latter, as in her statement, Dr Barton's appears to consider that an infection was contributing to Mrs Spurgin's drowsiness. For patients this unwell with an infection, particularly despite the existing use of antibiotics, the choice of

further antibiotic(s) would usually be made with the help of a microbiologist and modified subsequently based on results of wound, blood and urine cultures etc. There is no documentation to suggest that Dr Barton discussed Mrs Spurgin's management with Dr Reid, the orthopaedic team or a microbiologist before commencing a syringe driver containing diamorphine and midazolam.

Issue v (lack of clear, accurate, and contemporaneous patients records which report drugs prescribed; prescribing only the treatment, drugs, or appliances that serve patients' needs; willing to consult colleagues)

On the 12th April 1999, Dr Barton prescribed diamorphine 20–200mg, midazolam 20–80mg, hyoscine (hydrobromide) 200–800microgram (marked p.r.n. in the margin) and cyclizine (an anti-emetic) 50–100mg (marked p.r.n. in the margin) all SC/24h.

It is unusual that drugs to be given by syringe driver are prescribed 'as required' especially in a wide dose range. This is because of the inherent risks that would arise from a lack of clear prescribing instructions on why, when and by how much the dose can be altered within this range and by whom. For example, the lower dose range of diamorphine was 20mg/24h, but Mrs Spurgin was commenced on 80mg/24h. For these reasons, prescribing a drug as a range, particularly a wide range, is generally discouraged. Doctors, based upon an assessment of the clinical condition and needs of the patient usually decide on and prescribe any change in medication.

If there were concerns that a patient may experience, for example, episodes of pain, anxiety or agitation, it would be much more usual, and

indeed seen as good practice, to prescribe appropriate doses of morphine/diamorphine, diazepam/midazolam and other drugs that could be given intermittently 'as required' orally or SC alongside the fixed regular dose of analgesic. This allows a patient to receive what they need, when they need it and guides the doctor in subsequent dose titration of the regular dose of analgesic.

The wide dose range of diamorphine 20mg–200mg, is not justified at all in the notes and in my opinion includes doses excessive for Mrs Spurgin's needs. Doses of opioids excessive to a patient's needs are associated with an increased risk of drowsiness, delirium, nausea and vomiting and respiratory depression.

The equivalent subcutaneous dose of diamorphine is generally calculated by dividing the oral morphine dose by 2 or 3 (see technical issues). As Mrs Spurgin had been receiving oral morphine 40mg/24h, this is approximately equivalent to diamorphine 15–20mg/24h. A syringe driver was commenced containing diamorphine 80mg/24h, equivalent to oral morphine 160–240mg/24h, representing a 4–6 fold increase in Mrs Spurgin's dose of morphine. There is no justification for an increase of this magnitude in the dose of analgesia, and, in my opinion, was excessive to Mrs Spurgin's needs. The syringe driver also contained without apparent justification, midazolam 20mg/24h, a dose likely to sedate a 92 year old. As a result, Dr Reid found her unrousable and unresponsive to movement of her hip (a painful stimulus). Given the depth of her sedation, it would have been reasonable to have assessed her respiratory function, e.g. respiratory rate and the level of oxygen saturation in the blood (pulse oximetry), but this did not occur. In my opinion the syringe driver should have been discontinued and Mrs Spurgin's condition

monitored closely for evidence of respiratory depression, pain or agitation. Other practitioners may well choose to continue the opioid but at a lower dose as Dr Reid did. However, the dose he selected, diamorphine 40mg/24h, is equivalent to oral morphine 80–120mg/24h, i.e. still a 2–3 fold increase on Mrs Spurgin's previous dose. Further, there was a simultaneous increase in the midazolam to 40mg/24h, a dose that in my opinion would sedate a 92 year old, and was unjustified given that she was already unresponsive.

In her statement, Dr Barton makes the point that even 40mg of diamorphine was not seemingly successful in relieving Mrs Spurgin's pain as she was 'in some discomfort when attended to'. This, in my view, continues to underscore the point that the pain that Mrs Spurgin was experiencing on movement was not relieved by a dose of diamorphine that was associated with undesirable effects (i.e. sedation). This is unusual for someone who had undergone repair of a fractured neck of femur with a dynamic hip screw and reinforces the point that an orthopaedic review should have been sought.

If the care is found to be suboptimal to what extent may it disclose criminally culpable actions on the part of individuals or groups?

Both Dr Barton and Dr Reid had a duty to provide a good standard of medical practice and care. In this regard, Dr Barton and Dr Reid fell short of a good standard of clinical care as defined by the GMC (Good Medical Practice, General Medical Council, July 1998 pages 2–3) with particular reference to a lack of clear note keeping, adequate assessment of the patient, providing treatment that could be excessive to the patients' needs and willingness to consult colleagues.

In my view, Mrs Spurgin was not anticipated to be dying and very likely that her pain and subsequent deterioration were due to potentially reversible (and possibly preventable) causes that could be managed by the timely provision of hydration, a reduction in morphine dose and appropriate antibiotics. The pain was out of keeping with that usually seen in this situation, and failed to improve with time or increasing doses of morphine. Thus there were several prompts for both Dr Barton and Dr Reid to have sought an orthopaedic review.

Morphine and diamorphine are safe drugs when used correctly. The key issue is whether the use and the dose of diamorphine and other sedatives are *appropriate* to the patients' needs. Although some might invoke the principle of double effect (see technical issues), it remains that a doctor has a duty to apply effective measures that carry the least risk to life. Further, the principle of double effect does not allow a doctor to relinquish their duty to provide care with a reasonable amount of skill and care. This, in my view, would include the use of a dose of strong opioid that was *appropriate* and not excessive for a patient's needs.

In short, Dr Barton in particular, but also Dr Reid, could be seen as doctors who breached the duty of care they owed to Mrs Spurgin by failing to provide treatment with a reasonable amount of skill and care. This was to a degree that disregarded the safety of Mrs Spurgin by failing to adequately assess her condition and taking suitable and prompt action when she complained of pain that appeared excessive to her situation and when her physical state deteriorated in what was a potentially reversible way. Instead the actions of Dr Barton and Dr Reid exposed Mrs Spurgin to inappropriate doses of diamorphine and midazolam that would have contributed more than minimally,

negligibly or trivially to her death. As a result Dr Barton and Dr Reid leave themselves open to the accusation of gross negligence.

9. LITERATURE/REFERENCES

British National Formulary 36 (September 1998).

Prescribing in Terminal Care, pages 11–14

Prescribing for the elderly, pages 15-16

Good Medical Practice, General Medical Council, July 1998, pages 2–3

Palliative Care Handbook, Guidelines on Clinical Management, Third Edition

'Wessex Protocol' Salisbury Palliative Care Services May 1995.

10. EXPERTS' DECLARATION

1. I understand that my overriding duty is to the court, both in preparing reports and in giving oral evidence. I have complied and will continue to comply with that duty.
2. I have set out in my report what I understand from those instructing me to be the questions in respect of which my opinion as an expert are required.
3. I have done my best, in preparing this report, to be accurate and complete. I have mentioned all matters which I regard as relevant to the opinions I have expressed. All of the matters on which I have expressed an opinion lie within my field of expertise.
4. I have drawn to the attention of the court all matters, of which I am aware, which might adversely affect my opinion.
5. Wherever I have no personal knowledge, I have indicated the source of factual information.
6. I have not included anything in this report which has been suggested to me by anyone, including the lawyers instructing me, without forming my own independent view of the matter.
7. Where, in my view, there is a range of reasonable opinion, I have indicated the extent of that range in the report.
8. At the time of signing the report I consider it to be complete and accurate. I will notify those instructing me if, for any reason, I subsequently consider that the report requires any correction or qualification.
9. I understand that this report will be the evidence that I will give under oath, subject to any correction or qualification I may make before swearing to its veracity.
10. I have attached to this report a statement setting out the substance of all facts and instructions given to me which are material to the opinions expressed in this report or upon which those opinions are based.

11. STATEMENT OF TRUTH

I confirm that insofar as the facts stated in my report are within my own knowledge I have made clear which they are and I believe them to be true, and the opinions I have expressed represent my true and complete professional opinion.

Signature: _____ Date: _____