

**REPORT BY
PROFESSOR FORD**

MEDICO-LEGAL REPORT

Re: **Gladys Mabel RICHARDS**
 Arthur "Brian" CUNNINGHAM
 Alice WILKE
 Robert WILSON
 Eva PAGE

Prepared by: **Professor G A Ford, MA, FRCP**
 Consultant Physician, Freeman Hospital
 Newcastle upon Tyne
 Professor of Pharmacology of Old Age, University of
 Newcastle upon Tyne

For: **Hampshire Constabulary**

Date: **12th December 2001**

Contents

- 8 Introduction and remit of the report
- 9 Report on Gladys Mabel Richards
- 10 Report on Arthur "Brian" Cunningham
- 11 Report on Alice Wilkie
- 12 Report on Robert Wilson
- 13 Report on Eva Page
- 14 Opinion on clinical management at Gosport War Memorial Hospital
- 15 Appendix 1 – Pharmacology of opiate and sedative drugs
- 16 Appendix 2 – British National Formulary guidelines on prescribing in palliative care and prescribing in the elderly

Introduction and Remit of the Report

8.1 I am Professor of Pharmacology of Old Age in the Wolfson Unit of Clinical Pharmacology at the University of Newcastle upon Tyne, and a Consultant Physician in Clinical Pharmacology at Freeman Hospital. I am a Doctor of Medicine and care for patients with acute medical problems, acute poisoning and stroke. I have trained and am accredited on the Specialist Register in Geriatric Medicine, Clinical Pharmacology and Therapeutics and General Internal Medicine. I provide medical advice and support to the Regional Drugs and Therapeutics Centre Regional National Poisons Information Service. I was previously clinical head of the Freeman Hospital Care of the Elderly Service and have headed the Freeman Hospital Stroke Service since 1993. I undertake research into the effects of drugs in older people. I am co-editor of the book 'Drugs and the Older Population' and in 2000 was awarded the William B Abrams award for outstanding contributions to Geriatric Clinical Pharmacology by the American Society of Clinical Pharmacology and Therapeutics. I am a Fellow of the Royal College of Physicians and have practised as a Consultant Physician for nine years.

8.2 I have been asked by **Code A** of Hampshire Constabulary to examine the clinical notes of five patients (Gladys Mabel Richards, Arthur "Brian" Cunningham, Alice Wilkie, Robert Wilson, Eva Page) treated at the Gosport War Memorial Hospital and to apply my professional judgement to the following:

- The gamut of patient management and clinical practices exercised at the hospital
- Articulation of the leadership, roles, responsibilities and communication in respect of the clinicians involved
- The accuracy of diagnosis and prognosis including risk assessments
- An evaluation of drugs prescribed and the administration regimes
- The quality and sufficiency of the medical records
- The appropriateness and justification of the decisions that were made
- Comment on the recorded causes of death
- Articulate the duty of care issues and highlight any failures

1.3 I have prepared individual reports on each case and an additional report commenting on general aspects of care at Gosport War Hospital from a consideration of all five cases.

1.4 I have been provided with the following documents by Hampshire Constabulary, which I have reviewed in preparing this report:

- Comment on the recorded causes of death
- Letter **Code A** dated 15th August 2001
- Terms of Reference document
- Hospital Medical Records of Gladys Richards, Brian Cunningham, Alice Wilkie, Robert Wilson and Eva Page
- Witness statements by Leslie France Lack, and Gillian MacKenzie
- Report of Professor Brian Livesley
- Transcripts of police interviews with Gosport War Memorial staff Dr Barton, Mr Beed, Ms Couchman, Ms Joice

- Transcript of police interviews with Royal Hospital Haslar staff Dr Reid and Flt. Lt. Edmondson
- Transcript of interviews with patient transfer staff Mr Warren and Mr Tanner
- Transcript of police interviews with or statements from following medical and nursing staff: Dr Lord, LM Baldacchino, M Berry, JM Brewer, J Cook, E Dalton, W Edgar, A Fletcher, J Florio and A Funnell.

Arthur "Brian" CUNNINGHAM

Course of Events

- 3.1 Mr Cunningham was 79 years old when admitted to Dryad ward, Gosport Hospital under the care of Dr Lord. Dr Lord had assessed him on a number of occasions in the previous 4 years. A letter dated 2nd December 1994 from Dr Bell, Clinical Assistant, indicates Parkinson's disease had been diagnosed in the mid 1980s and that he was having difficulties walking at this time. In 1998 it was noted he had experienced visual hallucinations and had moved into Merlin Park Rest Home. His weight was 69Kg in August 1998. In July 1998 he was admitted under the care of Dr Banks, Consultant in Old Age Psychiatry to Mulberry Ward A and discharged after 6 weeks to Thalassa Nursing Home. He was assessed to have Parkinson's disease and dementia, depression and myelodysplasia. Dr Lord in a letter dated 1 September 1998 summarises her assessment of Mr Cunningham when she saw him on Mulberry Ward A on 27 August 1998 before he was discharged to Thalassa Nursing Home. At this time he required 1-2 people to transfer and was unable to wheel himself around in his wheelchair. She commented that more levodopa might be required but was concerned it would upset his mental state. She arranged to review him at the Dolphin Day Hospital.
- 3.2 On 21st September 1998 he was seen at the Dolphin Day Hospital by Dr Lord who recorded *'very frail, tablets found in mouth, offensive large necrotic sacral sore with thick black scar. PD - no worse. Diagnoses listed as sacral sore (in N/H), PD, old back injury, depression and element of dementia, diabetes mellitus -diet, catheterised for retention. Plan -stop codanthramer and metronidazole. looks fine. TCI Dyad today -aserbine for sacral ulcer -nurse on side - high protein diet -oramorph prn if pain. N/Home to keep bed open for next 3/52 at least. Pt informed of admission agrees. Inform N/Home Dr Banks and social worker. Analgesics prn.'* He was admitted to Dyad ward. An entry by Dr Baron on 21 September states *'make comfortable, give adequate analgesia. Am happy for nursing staff to confirm death.'* On 24th September Dr Lord has written *'remains unwell. Son has ??? again today and is aware of how unwell he is. sc analgesia is controlling pain just. I am happy for nursing staff to confirm death.'* The next entry by Dr Brook is on 25th September *'remains very poorly. On syringe driver. For TLC.'*
- 3.3 Medication charts record the following administration of opiate and sedative drugs:
- 21 Sep 1415h Oramorph 5mg
 - 1800h Coproxamol two tablets
(subsequent regular doses not administered)
 - 2015h Oramorph 10mg
 - 21 Sep 2310h Diamorphine 20mg/24hr, midazolam 20mg/24hr infusion sc
 - 22 Sep 2020h Diamorphine 20mg/24hr, midazolam 20mg/24hr infusion sc
 - 23 Sep 0925h Diamorphine 20mg/24hr, hyoscine 200microg/24hr
midazolam 20 mg/24hr infusion sc
 - 2000h Diamorphine 20mg/24hr, hyoscine 200microg/24hr
midazolam 60mg/24hr infusion sc
 - 24 Sep 1055h Diamorphine 20mg/24hr, hyoscine 800microg/24hr
midazolam 80mg/24hr infusion sc
 - 25 Sep 1015h Diamorphine 60mg/24hr, hyoscine 1200mg/24hr

midazolam 80mg/24hr infusion
 26 Sep 1150h Diamorphine 80mg/24hr, hyoscine 1200mg/24hr
 midazolam 100mg/24hr infusion
 Sinemet 110 5 times/day was discontinued on 23rd September

- 3.4 The nursing notes relating to the admission to Dyad ward record on 21st Sept *'remained agitated until approx 2030h. Syringe driver commenced as requested (unclear who made this request) diamorphine 20mg, midazolam 20mg at 2300. Peaceful following'*. On 22nd Sep *'explained that a syringe driver contains diamorphine and midazolam was commenced yesterday evening for pain relief and to allay his anxiety following an episode where Arthur tried to wipe sputum on a nurse saying he had HIV and going to give it to her. He also tried to remove his catheter and empty the bag and removed his sacral dressing throwing it across the room. Finally he took off his covers and exposed himself.'*
- 3.5 On 23rd Sep *'Has become chesty overnight to have hyoscine added to driver. Stelson contacted and informed of deterioration. Mr Farthing asked is this was due to the commencement of the syringe driver and informed that Mr Cunningham was on a small dosage which he needed.'* A later entry *'now fully aware that Brian is dying and needs to be made comfortable. Became a little agitated at 2300h, syringe driver adjusted with effect. Seems in some discomfort when moved, driver boosted prior to position change'* On 24th Sept *'report from night staff that Brian was in pain when attended to, also in pain with day staff – especially his knees. Syringe driver renewed at 1055'*. On 25th Sept *'All care given this am. Driver recharged at 1015 –diamorphine 60mg, midazolam 80mg and hyoscine 1200mcg at a rate of 50mmols/hr. Peaceful night - unchanged, still doesn't like being moved.'* On 26th September *'condition appears to be deteriorating slowly.'*
- 3.6 On 26th September staff nurse Tubbritt records death at 2315h. Cause of death was recorded on the death certificate as bronchopneumonia with contributory causes of Parkinson's disease and Sacral Ulcer.

Opinion on patient management

Leadership, roles, responsibilities and communication in respect of the clinicians involved

- 3.7 Primary responsibility for the medical care of Mr Cunningham during his last admission lay with Dr Lord, as the consultant responsible for his care. She saw Mr Cunningham 5 days before his death in the Dolphin Day Hospital, and 2 days before his death on Dyad ward. My understanding is that day-to-day medical care was the responsibility of the clinical assistant Dr Barton and during out of hours period the on call doctor based at the Queen Alexander Hospital. Ward nursing staff were responsible for assessing and monitoring Mr Cunningham and informing medical staff of any significant deterioration.

Accuracy of diagnosis and prognosis including risk assessments

- 3.8 Initial assessment by Dr Lord was comprehensive and appropriate with a clear management plan described. The nursing staff record Mr Cunningham was agitated following admission on 21st September. Dr Lord had prescribed prn (intermittent as required) oramorph for pain. Nursing staff made the decision to administer oramorph but there is no clear recording in the nursing notes that he

was in pain or the site of pain. The nursing entry on 22nd Sept indicates a syringe driver was commenced for 'pain relief and to allay anxiety. Again the site of pain is not stated. My interpretation of the records is that the nursing staff considered his agitation was due to pain from his sacral ulcer. The medical and nursing teams view on the cause of Mr Cunningham's deterioration on 23rd September when he became 'chesty' are not explicitly stated, but would seem to have been thought to be due to bronchopneumonia since this was the cause of death later entered on the death certificate. The medical and nursing staff may not have considered the possibility that Mr Cunningham's respiratory symptoms and deterioration may have been due to opiate and benzodiazepine induced respiratory depression. The nursing staff failed to appreciate that the agitation Mr Cunningham experienced on 23rd Sept at 2300h may have been due to the midazolam and diamorphine. It was appropriate for nursing staff to discuss Mr Cunningham's condition with medical staff at this stage.

- 3.9 When Dr Lord reviewed Mr Cunningham on 24th September the notes imply that he was much worse than when she had seen him 3 days earlier. There is clear recording by Dr Lord that Mr Cunningham was in pain. The following day the diamorphine dose was increased three fold from 20mg/24hr to 60mg/24hr and the dose was further increased on 26th September to 80mg/24hr although the nursing and medical notes do not record the reason for this. The notes suggest that the nursing and medical staff may have failed to consider causes of agitation other than pain in Mr Cunningham or to recognise the adverse consequences of opiates and sedative drugs on respiratory function in frail older individuals.

Evaluation of drugs prescribed and the administration regimens

- 3.10 The prescription of oramorph to be taken 4 hourly as required by Mr Cunningham was reasonable if his pain was uncontrolled from cocodamol. I consider the decision by Dr Barton to prescribe and administer diamorphine and midazolam by subcutaneous infusion the same evening he was admitted was highly inappropriate, particularly when there was a clear instruction by Dr Lord that he should be prescribed intermittent (underlined instruction) doses of oramorph earlier in the day. I consider the undated prescription by Dr Baron of subcutaneous diamorphine 20-200mg/24hr prn, hyoscine 200-800microg/24hr and midazolam 20-80mg/24hr to be poor practice and potentially very hazardous. In my opinion it is poor management to initially commence both diamorphine and midazolam in a frail elderly underweight patient such as Mr Cunningham. The combination could result in profound respiratory depression and it would have been more appropriate to review the response to diamorphine alone before commencing midazolam, had it been appropriate to commence subcutaneous analgesia, which as I have stated before was not the case.
- 3.11 In my opinion it is doubtful the nursing and medical staff understood that when a syringe infusion pump rate is increased it takes an often appreciable effect of time before the maximum effect of the increased dose rate becomes evident. Typically the time period would be 5 drug half-lives. In the case of diamorphine this would be between 15 and 25 hours in an older frail individual.

Quality and sufficiency of the medical records

- 3.12 In my opinion the medical and nursing records are inadequate following Mr Cunningham's admission to Dryad ward. The initial assessment by Dr Lord on

21st September is in my opinion competent and appropriate. The medical notes following this are inadequate and do not explain why he was commenced on subcutaneous infusions of diamorphine and midazolam. The nursing notes are variable and at times inadequate.

Appropriateness and justification of the decisions that were made

- 3.13 An inappropriately high dose of diamorphine and midazolam was first prescribed. There was a failure to recognise or respond to drug induced problems. Inappropriate dose escalation of diamorphine and midazolam and poor assessment by Dr Lord. The assessment by Dr Lord on 21st September 1998 was thorough and competent and a clear plan of management was outlined. There is a clear note by Dr Lord that oramorph was to be given intermittently (PRN) for pain and not regularly. It is not clear from the medical and nursing notes why Mr Cunningham was not administered the regular cocodamol he was prescribed following the initial dose he received at 1800h following admission. It is good practice to provide regular oral analgesia, with paracetamol and a mild opiate, particularly when a patient has been already taking this medication and to use prn morphine for breakthrough pain. I consider the prescription by Dr Barton on admission of prn subcutaneous diamorphine 20-200mg/24hr prn, hyoscine 200-800microg/24hr and midazolam 20-80mg/24hr to be unjustified, poor practice and potentially very hazardous. It is particularly notable that only hours earlier Dr Lord had written that oramorph was to be given intermittently and this had been underlined in the medical notes. There is no clear justification in the notes for the commencement of subcutaneous diamorphine and midazolam on the evening following admission. If increased opiate analgesia was required increasing the oramorph dose and frequency could have provided this. I would judge it poor management to initially commence both diamorphine and midazolam. The combination could result in profound respiratory depression and it would have been more appropriate to review the response to diamorphine alone before commencing midazolam.
- 3.14 I am concerned by the initial note entry by Dr Barton on 21st September 1998 that she was happy for nursing staff to confirm death. There was no indication by Dr Lord that Mr Barton was expected to die, and Dr Barton does not list the reason she would have cause to consider Mr Cunningham would die within the next 24 hours before he was reviewed the following day by medical staff. In my opinion it is of concern that the nursing notes suggest the diamorphine and midazolam infusions were commenced because of Mr Cunningham's behaviour recorded in the nursing entry on 22nd September.
- 3.15 Hyoscine was commenced on 23rd September after Mr Cunningham had become 'chesty' overnight. I consider it very poor practice that there is no record of Mr Cunningham being examined by a doctor following admission on 21st September, and a decision to treat this symptomatically with hyoscine appears to have been made by the medical staff. At this stage Mr Cunningham's respiratory signs are likely to have been due to bronchopneumonia or respiratory depression resulting in depressed clearance of bronchial secretions. A medical assessment was very necessary at this stage to diagnose the cause of symptoms and to consider treatment with antibiotics or reduction in the dose of diamorphine and midazolam.

- 3.16 Again I consider it very poor practice that the midazolam was increased from 20mg/24hr to 60mg/24 hr at 2000h on 23rd September. There is no entry in the medical notes to explain this dose increase. The decision to triple the midazolam dose appears to have been made by a member of nursing staff as the nursing notes record "*agitated at 2300h, syringe driver boosted with effect*".
- 3.17 A medical assessment should have been obtained before the decision to increase the midazolam dose was made. At the very least Mr Cunningham's problems should have been discussed with on call medical staff. Mr Cunningham's agitation may have been due to pain, where increasing analgesia would have been appropriate, or hypoxia (lack of oxygen). If Mr Cunningham's agitation was due to hypoxia a number of interventions may have been indicated. Reducing the diamorphine and midazolam dose would have been appropriate if hypoxia was due to respiratory depression. Commencement of oxygen therapy and possibly antibiotics would have been appropriate if hypoxia was due to pneumonia. Reducing the dose diamorphine or midazolam would have been indicated if hypoxia was due to drug-induced respiratory depression. The decision to increase the midazolam dose was not appropriately made by the ward nursing staff without discussion with medical staff.
- 3.18 When Mr Cunningham was reviewed by Dr Lord on 24th September he was very unwell but there is not a clear description of his respiratory status or whether he had signs of pneumonia. At this stage Dr Lord notes Mr Cunningham is in pain, but does not state the site of his pain. It is not clear to me whether the subsequent alteration in infusion rate of diamorphine, hyoscine and midazolam was discussed with and sanctioned by Dr Lord or Dr Barton. I consider the increase in midazolam from 60mg/24 hr to 80mg/24 hr was inappropriate as a response to the observation that Mr Cunningham was in pain. It would have been more appropriate to increase the diamorphine dose or even consider treatment with a non-steroidal anti-inflammatory drug. The increase in midazolam dose to 80mg/24 hr would simply make Mr Cunningham less conscious than he already appears to have been (there is not a clear description of his conscious level at this stage).
- 3.19 The increase in hyoscine dose to 800microg/24 hr is also difficult to justify when there is no record that the management of bronchial secretions was a problem. The subsequent threefold increase in diamorphine dose later that day to 60mg/24 hr is in my view very poor practice. Such an increase was highly likely to result in respiratory depression and marked depression of conscious level, both of which could lead to premature death. The description of Mr Cunningham, was that analgesia was 'just' controlling pain and a more cautious increase in diamorphine dose, certainly no more than two fold, was indicated with careful review of respiratory status and conscious level after steady state levels of diamorphine would have been obtained about 20 hours later. A more appropriate response to deal with any acute breakthrough pain is to administer a single prn (intermittent) dose of opiate by the oral or intramuscular route, depending on whether Mr Cunningham was unable to swallow at this time.
- 3.20 The increase in both diamorphine dose and midazolam dose on 26th September is difficult to justify when there is no record in the medical or nursing notes that Mr Cunningham's pain was uncontrolled. Although it is possible to accept the increase in diamorphine dose may have been appropriate if Mr Cunningham

was observed to be in pain, I find the further increase in midazolam dose to 100mg/24hr of great concern. I would anticipate that this dose of midazolam administered with 80mg/24hr of diamorphine would be virtually certain to produce respiratory depression and severe depression of conscious level. This would be expected to result in death in a frail individual such as Mr Cunningham. I would expect to see very clear reasons for the use of such doses recorded in the medical notes.

- 3.21 I can find no record of Mr Cunningham receiving food or fluids following his admission on 21st September despite a note from Dr Lord that Mr Cunningham was to receive a 'high protein diet'. There is no indication in the medical or nursing notes as to whether this had been discussed, but given that Mr Cunningham was admitted with the intention of returning to his Nursing Home (it was to be held open for 3 weeks) I would expect the notes to record a clear discussion and decision making process involving senior medical staff accounting for the decision to not administer subcutaneous fluids and/or nasogastric nutrition once Mr Cunningham was commenced on drugs which may have made him unable to swallow fluids or food.

Recorded causes of death

- 3.22 The recorded cause of death was bronchopneumonia with contributory causes of Parkinson's disease and sacral ulcer. A post mortem was not obtained and the recorded causes were in my opinion reasonable. It is possible that Mr Cunningham died from drug induced respiratory depression without bronchopneumonia present or from the combined effects of bronchopneumonia and drug-induced respiratory depression. Mr Cunningham was at high risk of developing pneumonia even if he had not received sedative or opiate drugs, bronchopneumonia can occur as a secondary complication of opiate and sedative induced respiratory depression. In the absence of post-mortem, radiological data (chest Xray) or recordings of Mr Cunningham's respiratory rate I would consider the recorded cause of death of bronchopneumonia as reasonable. Even if the staff had considered Mr Cunningham had drug-induced respiratory depression as a contributory factor, it would not be usual medical practice to enter this as a contributory cause of death where the administration of such drugs was considered appropriate for symptom relief.

Duty of care issues

- 3.23 Medical and nursing staff on Dryad ward had a duty of care to deliver medical and nursing care to attempt to heal Mr Cunningham's sacral ulcer and to document the effects of drugs prescribed. In my opinion this duty of care was not adequately met and the denial of fluid and diet and prescription of high doses of diamorphine and midazolam was poor practice and may have contributed to Mr Cunningham's death.

Summary

- 3.24 In summary although Mr Cunningham was admitted for medical and nursing care to attempt to heal and control pain from his sacral ulcer, Dr Barton and the ward staff appear to have considered Mr Cunningham was dying and had been admitted for terminal care. The medical and nursing records are inadequate in documenting his clinical state at this time. The initial prescription of

subcutaneous diamorphine, midazolam and hyoscine by Dr Barton was in my view reckless. The dose increases undertaken by nursing staff were inappropriate if not undertaken after medical assessment and review of Mr Cunningham. I consider it highly likely that Mr Cunningham experienced respiratory depression and profound depression of conscious level due to the infusion of diamorphine and midazolam. I consider the doses of these drugs prescribed and administered were inappropriate and that these drugs most likely contributed to his death through pneumonia and/or respiratory depression.

Robert WILSON

- 5.1 Mr Wilson was 75 years old man when he was admitted to Queen Alexandra Hospital on 22nd September 1998 after he sustained a proximal fracture of the left humerus. He was treated with morphine, initially administered intravenously and then subcutaneously. He developed vomiting. On 24th September he was given 5mg diamorphine and lost sensation in the left hand. On 29th September an entry in the medical notes states "*ref to social worker, review resus status. Not for resuscitation in view of quality of life and poor prognosis*".
- 5.2 On 7th October the notes record he was "*not keen on residential home and wished to return to his own home*". Dr Luszkat, Consultant in Old Age Psychiatry on 8th October 1998, saw him. Dr Luszkat's letter on 8th October notes that Mr Wilson had been sleepy and withdrawn and low in mood but was now eating and drinking well and appeared brighter in mood. His Barthel score was 5/20. Dr Luszkat noted he had a heavy alcohol intake during the last 5 years. At the time he was seen by Dr Luszkat he was prescribed thiamine 100 mg daily, multivitamins two tablets daily, senna two tablets daily, magnesium hydroxide 10 mls twice daily and paracetamol 1g four time daily. On examination he had mildly impaired cognitive function (Mini Mental State Examination 24/30). Dr Luszkat considered Mr Wilson might have developed an early dementia, which could have been alcohol related, Alzheimer's disease or vascular dementia. An antidepressant trazadone 50mg nocte was commenced. Dr Luszkat states at the end of her letter "*On the practical side he may well require nursing home care though at the moment he is strongly opposed to that idea I shall be happy to arrange follow up by our team once we know when and where he is going to be discharged*". On 13th October the medical notes record a ward round took place, that he required both nursing and medical care, was at risk of falling and that a short spell in long-term NHS care would be appropriate. Reviewing the drug charts Mr Wilson was taking regular soluble paracetamol (1g four times daily) and codeine phosphate 30mg as required for pain. Between 8th and 13th October Mr Wilson was administered four doses of 30mg codeine. Mr Wilson's weight in March 1997 was 93Kg
- 5.3 On the 14th October Mr Wilson was transferred to Dryad Ward. An entry in the medical notes by Dr Barton reads "*Transfer to Dryad ward continuing care. HPC fracture humerus. needs help with ADL (activities of Daily Living), hoisting, continent, Barthel 7. Lives with wife. Plan further mobilisation*". On 16th November the notes record; "*Decline overnight with S.O.B. o/e ? weak pulse. Unresponsive to spoken work. Oedema ++ in arms and legs. Diagnosis ? silent MI, ? decreased ___ function. ↑ frusemide to 2 x 40mg om*". On 17th October the notes record '*comfortable but rapid deterioration*'. On 18th October staff nurse Collins records death at 2340h. Cause of death is recorded as congestive cardiac failure.
- 5.4 Nursing notes state in the summary section on 14th October "*History of left humerus fracture, arm in collar and cuff. Long history of heavy drinking. LVF chronic oedematous legs. S/B Dr Barton. Oramorph 10mg/5ml given. Continent of urine – uses bottles*". On 15th October "*Commenced oramorph 10mg/5ml 4 hrly for pain in L arm. Wife seen by sis. Hamblin who explained Robert's condition is poor*". An earlier note states "*settled and slept well*". On 16th October "*seen by Dr Knapman as deteriorated over night. Increase*

frusemide to 80mg daily. For A.N.C (active nursing care)". Later that day a further entry states "Patient very bubbly chest this pm. Syringe driver commenced 20mg diamorphine, 400mcgs hyoscine. Explained to family reason for driver". A separate note on 16th October in the nursing care plan states "More secretions – pharyngeal – during the night, but Robert hasn't been distressed. Appears comfortable". On 17th October 0515h "Hyoscine increased to 600mcgs as oro-pharyngeal secretions increasing. Diamorphine 20mg." Later that day a further entry states "Slow deterioration in already poor condition. Requiring suction very regularly – copious amounts suctioned. Syringe driver reviewed at 15.50 s/c diamorphine 40mg, midazolam 20mcgs, hyoscine 800 mcgs". A later note states "night: noisy secretions but not distressing Robert. Suction given as required during night. Appears comfortable". On 18th October "further deterioration in already poor condition. Syringe driver reviewed at 14:40 s/c diamorphine 60mg, midazolam 40mg, hyoscine 1200mcg. Continues to require regular suction".

- 5.5 The medication charts record administration of the following drugs:
- 14 Sep 1445h oramorph 10mg
 - 2345h oramorph 10mg
 - 16 Sep 1610h diamorphine 20mg/24 hr, hyoscine 400 microg/24hr subcutaneous infusion
 - 17 Sep 0515h diamorphine 20mg/24hr, hyoscine 600 microg/24hr
 - 1550h diamorphine 40mg/24hr, hyoscine 800 microg/24hr
 - midazolam 20mg/24hr
 - Sep 1450h diamorphine 60mg/24hr, hyoscine 1200 microg/24hr
 - midazolam 40mg/24hr
- 18
- Frusemide was administered at a dose of 80mg daily at 0900h on 15th and 16th October. An additional 80 mg oral dose was administered at an unstated time on 16th October.

Opinion on patient management

Leadership, roles, responsibilities and communication in respect of the clinicians involved

- 5.6 Responsibility for the care of Mr Wilson during his admission to Dryad ward lay with Dr Lord as the consultant responsible for his care. My understanding is that day to day medical care was delegated to the clinical assistant Dr Barton and during the out of hours responsibility was with the on call doctor based at Queen Alexandra Hospital. Ward nursing staff were responsible for assessing and monitoring Mr Wilson and informing medical staff of any significant deterioration.
- 5.7 Dr Lusznat was responsible for assessing Mr Wilson and making further recommendations concerning his future care when he was seen at Queen Alexandra Hospital.

Accuracy of diagnosis and prognosis including risk assessments

- 5.8 Dr Barton assessed Mr Wilson on 14th October the day he was transferred to Dyad ward. There was a plan to attempt to improve his mobilisation through rehabilitation. There is no record of any significant symptomatic medical problems, in particular any record that Mr Wilson was in pain in the medical

notes. The nursing notes suggest Mr Wilson was prescribed oramorph for pain in his arm following his admission to Dryad Ward. He was prescribed paracetamol to take as required but did not receive any paracetamol whilst on Dryad Ward.

- 5.9 Mr Wilson deteriorated on 15th September when he became short of breath. The working diagnosis was of heart failure due to a myocardial infarct. I do not consider the assessment by the on call doctor of Mr Wilson was adequate or competent. There is no record of his blood pressure, clinical examination findings in the chest (which might have indicated whether he had signs of pulmonary oedema or pneumonia). In my opinion an ECG should have been obtained that night, and a Chest Xray obtained the following morning to provide supporting evidence for the diagnosis. Mr Wilson was admitted for rehabilitation not terminal care and it was necessary and appropriate to perform reasonable clinical assessments and investigations to make a correct diagnosis.
- 5.10 Following treatment Mr Wilson was noted to have had a rapid deterioration. The medical and nursing teams appear to have failed to consider that Mr Wilson's deterioration may have been due to the diamorphine infusion. In my opinion when Mr Wilson was unconscious the diamorphine infusion should have been reduced or discontinued. The nursing and medical staff failed to record Mr Wilson's respiratory rate, which was likely to have been reduced, because of respiratory depressant effects of the diamorphine. The diamorphine and hyoscine infusion should have been discontinued to determine whether this was contributing to his deteriorating state. There is no record of the reason for the prescribing of the midazolam infusion commenced the day before his death. At this time the nursing notes record he was comfortable. Mr Wilson did not improve. The medical and nursing teams did not appear to consider that the diamorphine, hyoscine and midazolam infusion could be a major contributory factor in Mr Wilson's subsequent decline. The infusion should have been discontinued and the need for this treatment, in my opinion unnecessary at the time of commencement, reviewed.

Evaluation of drugs prescribed and the administration regimens

- 5.11 The initial prescription and administration of oramorph to Mr Wilson following his transfer to Dryad ward was in my opinion inappropriate. His pain had been controlled with regular paracetamol and as required codeine phosphate (a mild opiate) prior to his transfer, and in the first instance these should have been discontinued.
- 5.12 I am unable to establish when Dr Barton wrote the prescription for subcutaneous diamorphine 20-200mg/24hr, hyoscine 200-800microg/24hr, and midazolam 20-80mg/24hr as these are undated. The administration of diamorphine and hyoscine by subcutaneous infusion as a treatment for the diagnosis of a silent myocardial infarction was in my opinion inappropriate. The prescription of a single dose of intravenous opiate is standard treatment for a patient with chest pain following myocardial infarction is appropriate standard practice but was not indicated in Mr Wilson's case as he did not have pain. The prescription of an initial single dose of diamorphine is appropriate as a treatment for pulmonary oedema if a patient fails to respond to intravenous diuretics such as frusemide. Mr Wilson was not administered intravenous frusemide or another loop diuretic. Instead only a single additional oral dose of frusemide

was administered. In my opinion this was an inadequate response to Mr Wilson's deterioration. The prescription of continuous subcutaneous infusion of diamorphine and hyoscine is not appropriate treatment for a patient who is pain free with a diagnosis of a myocardial infarction and heart failure. When opiates are used to treat heart failure, close monitoring of blood pressure and respiratory rate, preferably with monitoring of oxygen saturation is required. This was not undertaken.

- 5.13 The increase in diamorphine dose to 40mg/24hr and then 60mg/24 hr in the following 48 hours is not appropriate when the nursing and medical notes record no evidence that Mr Wilson was in pain or distressed at this time. This was poor practice and potentially very hazardous. Similarly the addition of midazolam and subsequent increase in dose to 40mg/24hr was in my opinion highly inappropriate and would be expected to carry a high risk of producing profound depression of conscious level and respiratory drive.

Quality and sufficiency of the medical records

- 5.14 The initial entry in the medical records by Dr Barton on 14th October is reasonable and sufficient. The subsequent entries relating to Mr Wilson's deterioration are in my opinion inadequate, and greater detail and the results of examination findings should have been recorded. No justification for the increases in diamorphine, midazolam and hyoscine dose are written in the medical notes. The nursing notes are generally of adequate quality but I can find no record of fluid and food intake by Mr Wilson.

Appropriateness and justification of the decisions that were made

- 5.15 I consider the prescription of oramorph was inappropriate. The subsequent prescription and administration of diamorphine, hyoscine and midazolam was highly inappropriate, not justified by information presented in the notes and could be expected to result in profound depression of conscious level and respiratory depression in a frail elderly man such as Mr Wilson.

Recorded causes of death

- 5.16 The recorded cause of death was congestive cardiac failure. The limited clinical information recorded in the absence of a chest Xray result or post-mortem findings, suggest this may have been the cause of Mr Wilson's death. However in my opinion it is highly likely that the diamorphine, hyoscine and midazolam infusion led to respiratory depression and/or bronchopneumonia and it is possible that Mr Wilson died from drug induced respiratory depression.

Duty of care issues

- 5.17 Medical and nursing staff on Dryad ward had a duty of care to deliver appropriate medical and nursing care to Mr Wilson, and to monitor the effects of drugs prescribed. In my opinion this duty of care was not adequate. The administration of high doses of diamorphine and midazolam was poor practice and may have contributed to Mr Wilson's death.

Summary

- 5.18 Mr Wilson was a frail elderly man with early dementia who was physically dependent. Following his admission to Dryad ward he was, in my opinion,

inappropriately treated with high doses of opiate and sedative drugs. These drugs are likely to have produced respiratory depression and/or the development of bronchopneumonia and may have contributed to his death.

Opinion on clinical management at Gosport War Memorial Hospital based on review of five cases presented by Hampshire Police

- 7.1 My opinion on the five cases I have been asked to review at Gosport War Memorial Hospital must be considered in context. My understanding is that the five cases have been selected by Hampshire Police because of concerns expressed relating to the management of these patients. Therefore my comments should not be interpreted as an opinion on the quality of care in general at Gosport War Memorial Hospital or of the general quality of care by the clinicians involved. My comments also relate to a period 2-4 years ago and the current clinical practice at the hospital may be very different today. An opinion on the quality of care in general at the hospital or of the clinicians would require a systematic review of cases, selected at random or with pre-defined patient characteristics. Examination of selected cases is not an appropriate mechanism to comment on the general quality of care of an institution or individual practitioners.
- 7.2 However having reviewed the five cases I would consider they raise a number of concerns that merit further examination by independent enquiry. Such enquiries could be made through further police interviews or perhaps more appropriately through mechanisms within the National Health Service, such as the Commission for Health Improvement, and professional medical and nursing bodies such as the General Medical Council or United Kingdom Central Council for Nursery, Midwifery and Health Visiting.
- 7.3 My principle concerns relate to the following three areas of practice: prescription and administration of subcutaneous infusions of opiate and sedative drugs in patients with non-malignant disease, lack of training and appropriate medical supervision of decisions made by nursing staff, and the level of nursing and non-consultant medical skills on the wards in relation to the management of older people with rehabilitation needs.
- 7.4 In all five cases subcutaneous infusions of diamorphine and in combination with sedative drugs were administered to older people who were mostly admitted for rehabilitation. One patient with carcinoma of the bronchus was admitted for palliative care. Although intravenous infusion of these drugs are used frequently in intensive care settings, very close monitoring of patients is undertaken to ensure respiratory depression does not occur. Subcutaneous infusion of these drugs is also used in palliative care, but the British National Formulary indicates this route should be used only when the patient is unable to take medicines by mouth, has malignant bowel obstruction or where the patient does not wish to take regular medication (Appendix 2). In only one case were these criteria clearly fulfilled i.e. in Mrs Page who was refusing to take oral medication. Opiate and sedative drugs used were frequently used at excessive doses and in combination with often no indication for dose escalation that took place. There was a failure by medical and nursing staff to recognise or respond to severe adverse effects of depressed respiratory function and conscious level that seemed to have occurred in all five patients. Nursing and medical staff appeared to have little knowledge of the adverse effects of these drugs in older people.

- 7.5 Review of the cases suggested that the decision to commence and increase the dose of diamorphine and sedative drugs might have been made by nursing staff without appropriate consultation with medical staff. There is a possibility that prescriptions of subcutaneous infusions of diamorphine, midazolam and hyoscine may have been routinely written up for many older frail patients admitted to Daedalus and Dryad wards, which nurses then had the discretion to commence. This practice if present was highly inappropriate, hazardous to patients and suggests failure of the senior hospital medical and managerial staff to monitor and supervise care on the ward. Routine use of opiate and sedative drug infusions without clear indications for their use would raise concerns that a culture of "involuntary euthanasia" existed on the ward. Closer enquiry into the ward practice, philosophy and individual staff's understanding of these practices would be necessary to establish whether this was the case. Any problems may have been due to inadequate training in management of older patients. It would be important to examine levels of staffing in relation to patient need during this period, as the failure to keep adequate nursing records could have resulted from under-staffing of the ward. Similarly there may have been inadequate senior medical staff input into the wards, and it would be important to examine this in detail, both in terms of weekly patient contact and in time available to lead practice development on the wards. My review of Dr Lord's medical notes and her statement leads me to conclude she is a competent, thoughtful geriatrician who had a considerable clinical workload during the period the above cases took place.
- 7.6 I consider the five cases raise serious concerns about the general management of older people admitted for rehabilitation on Daedalus and Dryad wards and that the level of skills of nursing and non-consultant medical staff, particularly Dr Barton, were not adequate at the time these patients were admitted.
- 7.7 Having reviewed the five cases presented to me by Hampshire Police, I consider they raise serious concerns about nursing and medical practice on Daedalus and Dryad wards at Gosport War Memorial Hospital. In my opinion a review of practice at the institution is necessary, if this has not already taken place. I would recommend that if criminal proceedings do not take place, that these cases are brought to the attention of the General Medical Council and United Kingdom Central Council for Nursery, Midwifery and Health Visiting, in relation to the professional competence of the medical and nursing staff, and the Commission for Health Improvement, in relation to the quality of service provided to older people in the Trust.

APPENDIX 1

Pharmacology of Opiate and Sedative Drugs

Morphine

8.1 Morphine is a potent opiate analgesic considered by many to the 'drug of choice' for the control of acute pain (Therapeutic Drugs Dollery). Recommended starting dosage regimens for a fit adult of 70Kg are for intravenous bolus dosing 2.5mg every 5 min until analgesia achieved with monitoring of the duration of pain and dosing interval, or a loading dose of 5-15mg over 30min than 2,5mg –5mg every hour. A standard reference text recommends 'morphine doses should be reduced in elderly patients and titrated to provide optimal pain relief with minimal side effects'. Morphine can be used for sedation where sedation and pain relief are indicated, Dollery comments '*it should be noted that morphine is not indicated as a sedative drug for long-term use. Rather the use of morphine is indicated where the requirement for pain relief and sedation coexist such as in patients admitted to intensive care units and other high dependency areas, the morphine dose should be titrated to provide pain relief and an appropriate level of sedation. Frequently other pharmacological agents (e.g.: benzodiazepines) are added to this regimen to increase the level of sedation*".

8.2 Diamorphine

8.3

8.4 Fentanyl

8.5 Fentanyl is a transdermal opioid analgesic available as a transdermal patch. The '25' patch releases 25microg/hr.

8.6 The British National Formulary (copy of prescribing in palliative care attached Appendix 2) comments on the use of syringe drivers in prescribing in palliative care that drugs can usually be administered by mouth to control symptoms, and that indications for the parenteral route are: patient unable to take medicines by mouth, where there is malignant bowel obstruction, and where the patient does not wish to take regular medication by mouth, It comments that staff using syringe drivers should be adequately trained and that incorrect use of syringe drivers is a common cause of drug errors.

Heminevrin

Midazolam

8.1 Midazolam is a benzodiazepine sedative drug. It is used as a hypnotic, preoperative medication, sedation for procedures such as dentistry and GO endoscopy, long-term sedation and induction of general anaesthesia. It is not licensed for subcutaneous use, but is described in the British National Formulary prescribing in palliative care section as 'suitable for a very restless patient: it is given in a subcutaneous infusion dose of 20-100mg/24 hrs.

8.2 DA standard text describes the use of sedation with midazolam in the intensive care unit setting, and states, "*sedation is most commonly met by a combination of a benzodiazepine and an opioid, and midazolam has generally replaced diazepam in this respect*". It goes on to state, "*in critically ill patients, prolonged sedation may follow the use of midazolam infusions as a result of delayed administration*". Potentially life threatening adverse effects are described, "*Midazolam can cause dose-related CNS depression, respiratory and*

cardiovascular depression. There is a wide variation in susceptibility to its effects, the elderly being particularly sensitive. Respiratory depression, respiratory arrest, hypotension and even death have been reported following its use usually during conscious sedation. The elderly are listed as a high-risk group; the elderly are particularly sensitive to midazolam. The dose should be reduced and the drug given slowly intravenously in a diluted form until the desired response is achieved. In drug interactions the following is stated. *"midazolam will also potentiate the central depressant effects of opioids, barbituates, and other sedatives and anaesthetics, and profound and prolonged respiratory depression might result."*

8.3

Hyoscine

8.4 The British National Formulary describes hyoscine hydrobromide as an antagonist (blocking drug) of acetylcholine. It reduces salivary and respiratory secretions and provides a degree of amnesia, sedation and antiemesis (antinausea). IN some patients, especially the elderly, hyoscine may cause the central anticholinergic syndrome (excitement, ataxia, hallucinations, behavioural abnormalities, and drowsiness). The palliative care section describes it as being given in a subcutaneous infusion dose of 0.6-2.4mg/24 hours.

8.5

Use of syringe drivers

8.1 The BNF states 'oral medication is usually satisfactory unless there is severe nausea and vomiting, dysphagia, weakness, or coma in which case parenteral medication may be necessary. In the pain section it comments the non-opioid analgesics aspirin or paracetamol given regularly will often make the use of opioids unnecessary. An opioid such as codeine or dextropropoxyphene alone or in combination with a non-opioid analgesic at adequate dosage may be helpful in the control of moderate pain id non-opioids are not sufficient. If these preparations are not controlling the pain, morphine is the most useful opioid analgesic. Alternatives to morphine are hydromorphine, oxycodone and transdermal fentanyl. In prescribing morphine it states 'morphine is given as an oral solution or as standard tablets every 4 hour, the initial dose depending largely on the patient's previous treatment. A dose of 5-10mg is enough to replace a weaker analgesic. If the first dose of morphine is no more effective than the previous analgesic it should be increased by 50% the aim being to choose the lowest dose which prevents pain. The dose should be adjusted with careful assessment of the pain and the use of adjuvant analgesics (such as NSAIDs) should also be considered. Although morphine in a dose of 5-10mg is usually adequate there should be no hesitation in increasing it stepwise according to response to 100mg or occasionally up to 500mg or higher if necessary. The BNF comments on the parenteral route '*diamorphine is preferred for injection. The equivalent intramuscular or subcutaneous dose of diamorphine is approximately a third of the oral dose of morphine*'

8.2 In the chapter on pain relief in 'Drugs and the Older Person' Crome writes on the treatment of acute pain '*treat the underlying cause and give adequate pain relief. The nature of the painful condition, the response of the patient and the presence of comorbidity will dictate whether to start with a mild analgesic or to go immediately to a more potent drug. In order to avoid the situation that patients remain in pain, "starting low" must be followed by regular re-evaluation with, if necessary, frequent increases in drug dose. The usual method of prescribing morphine for chronic pain is to start with standard oral morphine in a*

dose of 5-10mg every four hours. The dose should be halved in frail older people.

Prescribing for the Elderly

The British National Formulary states in Prescribing for the Elderly section "*The ageing nervous system shows increased susceptibility to many commonly used drugs, such as opioid analgesics, benzodiazepines, antipsychotics and antiparkinsonian drugs, all of which must be used with caution*".

APPENDIX 2

BNF Prescribing in palliative care