GMC and Dr Barton
Report on Gladys Richards (Patient E)

Professor Gary A Ford, FRCP
Consultant Physician

21 April 2009

GMC and Dr Barton
Report on Patient E

1. This report is provided on the instruction of Field Fisher Waterhouse Solicitors. I have been asked to prepare a report on the medical care of Patient E, commenting on the care and treatment carried out by Dr Barton in relation to this patient to assist the GMC Panel in determining whether Dr Barton has fallen short of what is reasonably expected from a medical practitioner in the circumstances that she was practising. I note the allegations presented to the Fitness to Practice Panel that prescriptions by Dr Barton on 11 August 1998 of diamorphine and midazolam were in too wide a dose range and created a situation whereby drugs could be administered to patient E which were excessive to her needs; that prescriptions of oramorphine, diamorphine and midazolam were inappropriate, potentially hazardous and not in the best interests of Patient E.

2. I am the Jacobson Chair of Clinical Pharmacology at Newcastle University and a consultant physician at the Newcastle upon Tyne Hospitals Foundation Trust. I am a Doctor of Medicine and am trained and accredited on the specialist register in Geriatric Medicine, Clinical Pharmacology and Therapeutics in General and Internal Medicine. I was previously Clinical Head of the Freeman Hospital Care of the Elderly Service I undertook research into the effects of drugs in older people. I am current editor of the book Drugs in the Older Population and in 2000 I was awarded the William B. Abrams Award for Outstanding Contributions to Charity and Clinical Pharmacology by the American Society of Clinical Pharmacology and Therapeutics. I am a fellow of the Royal College of Physicians and practiced as consultant physician for 16 years. My curriculum vitae is separately attached.

3. This report should be read in the context of the general report I have provided on the Principles of Medical Care and Matters Specific to Gosport War Memorial Hospital and the medico-legal report I provided to Hampshire Constabulary dated 12 December 2001. In that report pages 4-13 I described the course of events relating to Patient E's admission to the Royal Hospital Haslar on 29 July 1998 subsequent care following her transfer to Daedalus ward, Gosport War Memorial Hospital on 11 August prior to her death on 21 August 1998.

4. This report is based on my review of the following documents: medical records of Patient E; statements of [redacted] police statements of Dr Barton; statement made by Dr Barton in relation to patient E.

5. **Course of events**

   I have described these in my report to Hampshire Constabulary dated 12 December 2001. I have no changes or corrections to make to my statement of the course of events as outlined in that report.

6. **Drug therapy prescribed and received at Gosport War Memorial Hospital.**

   In the next section I list all drug therapy received providing more detail of Dr Barton's prescribing previously outlined in section 2.11 of my report to Hampshire Constabulary (12 December 2001).

   Pages 62-All prescriptions written by Dr Barton unless otherwise marked.

As required prescriptions

Oramorphine 10mg/5ml	11 Aug	1115h	10mg
2.5-5ml		1145h	10mg
Prescribed 11 Aug	12 Aug	0615h	10mg
	13 Aug	2050h	10mg
	14 Aug	1150h	10mg
	17 Aug	1300h	5mg
		?	5mg
		1645h	5mg
		2030h	10mg
	18 Aug	0230h	10mg
		?	10mg

Diamorphine subcut via syringe driver	None administered		
20-200mg/24hr			
Prescribed 11 Aug			
Hyoscine subcut via syringe driver	19 Aug	1120h	200ucg/24hr *? 400*
200-800 ucg/24hr	20 Aug	1045h	400ucg/24hr
Prescribed 11 Aug	21 Aug	1155h	40ucg/24hr
Midazolam subcut via syringe driver	18 Aug	1145h	20mg/24hr
20-80mg / 24 hr	19 Aug	1120h	20mg/24hr
Prescribed 11 Aug	20 Aug	1045h	20mg/24hr
	21 Aug	1155h	20mg/24hr

Regular prescriptions

Haloperidol 2mg/ml oral	13 Aug One dose administered
0.5ml 'If noisy'	
Heading 'REGULAR PRESCRIPTION' crossed out and replaced with 'PRN' for this prescription	
Haloperidol 2mg/ml, I mg twice daily	11 -14 Aug
Prescribed 11 Aug	17 Aug then none administered
Oramorphine 10mg/5ml	None administered
2.5 ml four time daily	
Prescribed 12 Aug. Marked 'PRN'	
Oramorphine 10mg/5ml	None administered
5ml nocte	
Prescribed 12 Aug. Marked 'PRN'	

Diamorphine subcut via syringe driver	18 Aug	1145h	40mg/24hr
40-200mg/24hr	19 Aug	1120h	40mg/24hr
Prescribed 17 Aug	20 Aug	1045h	40mg/24hr
	21 Aug	1155h	40mg/24hr
Haloperidol subcut via syringe driver	18 Aug	1145h	5mg/24hr
5-10mg/24hr	19 Aug	1120h	5mg/24hr
Prescribed 17 Aug	20 Aug	1045h	5mg/24hr
	21 Aug	1155h	5mg/24hr

Lactulose 10ml twice daily	11-14 Aug
Prescribed 11 Aug	17 Aug then none administered

Opinion on Patient Management

7. I have already provided my opinion on patient management in my report to Hampshire Constabulary. I am making additional comments which relate specifically to the allegations made to the Fitness to Practice Panel with respect to Dr Barton's prescribing. I have the following corrections to make to my report to Hampshire Constabulary:
   i) 2.26 line 11 *'The prescription by Dr Barton on 11th August of three sedative drugs by subcutaneous infusion was in my opinion reckless and inappropriate'* is incorrect as Dr Barton had prescribed two sedative drugs diamorphine and midazolam on 11th August. In this report I comment on the initial prescription of the two drugs in this report and the prescription of haloperidol by subcutaneous infusion on 17 August.
   ii) 2.30 line 13 *'In the absence of post-mortem. Radiological data (chest Xray) or recordings of Mr _____ respiratory rate...'* should read *"In the absence of post-mortem. Radiological data (chest Xray) or recordings of Patient E's respiratory rate...'.*

8. Patient E was a frail elderly woman with dementia who was living in a nursing home prior to admission following a fractured hip secondary to a fall. Following assessment by [redacted] (page 24,26 letter summarising assessment) on 3 Aug 1998 she was transferred to Daedalus Ward, Gosport War Memorial Hospital with the aim to improve her mobility. Prior to her transfer to Daedalus ward the orthopaedic nursing team documented on the 10 August that she was fully weight bearing and walking with the aid of two nurses and a Zimmer Frame.

9. The medical notes record a limited assessment by Dr Barton of patient E on 11 August following her admission to Daedalus ward but indicate she was *'not obviously in pain'*. The nursing records on 12 August also state that patient E did not appear to be in pain when she awoke from sleep very agitated. Prior to her transfer to Daedalus ward patient E had been taking cocodamol (paracetamol and codeine) as required. As I have previously commented (section 2.21 report to Hampshire Constabulary) I do not consider it was appropriate to prescribe oramorphine and a subcutaneous diamorphine infusion to patient E on 11 August. The medical records contain no information suggesting patient E's pain would not be controlled by as required or regular cocodamol which she had already been receiving.

10. The oramorphine patient E received between 11-13 August may have contributed to her confusion and agitation following admission to Daedalus ward and to her fall on 13 August leading to dislocation of the hip. However she had dementia, had been agitated prior to receiving the oramorphine and was also taking haloperidol, all of which increase the risk of falls and hip dislocation.

11. The prescription by Dr Barton of diamorphine in the dose range 20-200mg/24hr was excessively wide and placed patient E at a high risk of developing respiratory depression and coma if a higher infusion rate had been commenced. In my opinion from the information available in the notes the prescriptions on 11 August of as required oramorphine and diamorphine by subcutaneous infusion by Dr Barton were inappropriate and potentially hazardous to patient E. The recorded clinical assessment of patient E undertaken by Dr Barton did not justify the prescription of powerful opioid drugs at this stage, and no instructions were recorded in the medical or nursing records as to the circumstances under which oramorphine or diamorphine should be administered.

12. I can find no justification in the medical or nursing notes for the prescription and commencement of the midazolam infusion prescribed by Dr Barton to patient E on 11 August. Patient E had intermittent episodes of agitation and regular haloperidol with additional as required doses was appropriate to manage these symptoms. Midazolam is indicated for terminal restlessness and is also indicated in the Wessex Protocol' for the management of anxiety in a palliative care setting for patients already receiving drugs through a syringe driver. None of these applied to patient E.

13. The dose of subcutaneous midazolam prescribed by Dr Barton was in also in my opinion excessively high. Older patients are more susceptible to midazolam and at increased risk of developing respiratory and central nervous system depression. In an older frail patient in whom a midazolam infusion as indicated an appropriate starting dose would have been 10mg/24hr particularly when diamorphine had also been prescribed. The lower dose of 20mg/24hr was inappropriately high and the upper limit of the dose range prescribed 80mg/24hr unacceptably high. The prescribed dose range of midazolam particularly in conjunction with the diamorphine prescribed placed Patient E at risk of developing life threatening complications if these doses were administered by nursing staff.

14. Following patient E's readmission to Daedalus ward on 17 August the medical and nursing notes document that Patient E had hip pain. I consider the administration of opioids at this point was reasonable and appropriate. The cause of the hip pain was unclear and it would have been good practice for Dr Barton to discuss patient E with the responsible consultant and/or the orthopaedic team. However as no dislocation was present on the repeat XRay the focus would have been on the provision of effective pain relief. The medical and nursing notes Patient E was deteriorating rapidly at this stage. Hip fracture is often a pre-terminal event in frail patients with dementia. I would consider the focus of care was appropriately on palliating Patient E's symptoms of pain and agitation.

15. Oral morphine was initially used and a total of 45 mg morphine was administered to patient E between 17 August 1300h and 18 August 1145h when a diamorphine infusion was commenced. The medical notes do not record the justification for commencing a subcutaneous infusion rather than continuing to administer drugs by the oral route. The equivalent dose of subcutaneous diamorphine is one third to one half of the total oral morphine dose received which would have equated to 15-23mg/24hr. Patient E was still in pain so a further 50% increase in dose was reasonable which would equate to about 35mg/24hr subcutaneous diamorphine. I would consider the dose of diamorphine infused was high but not unreasonably so, although careful monitoring of patient E's conscious level and respiratory rate was required.

16. The nursing and medical notes indicate patient E was in pain and distressed on 17 August and it was appropriate to continue to administer haloperidol via a syringe driver which was commenced on 18 August at an equivalent dose to that she had been receiving orally. On 16 August patient E received 6 mg oral haloperidol (section 2.10 report to Hampshire Constabulary) whilst at Royal Hospital Haslar. Patient E received one dose of haloperidol on 17 August after transfer back to Daedalus ward and the medical notes record she was in pain and distress. I consider the prescription of haloperidol 5mg/24hr by syringe driver on 17 August was reasonable as this equated to the total oral dose received on 16 August. The administration of diamorphine and haloperidol required careful monitoring because these drugs alone or in combination may produce coma and/or respiratory depression.

17. In my view it was appropriate to prescribe opioid analgesia for pain and haloperidol for distress and agitation on 18 August. The medical notes do not record a clear indication for using subcutaneous infusion rather than continuing oral adminstration. However the doses of morphine and haloperidol that were commenced by subcutaneous infusion on 18 August were in my view reasonable.

18. The medical notes provide no justification for the administration of midazolam to patient E on 18 August. It would have been appropriate to observe the response of patient E to the infusion of diamorphine and haloperidol. If patient E remained agitated and distressed and this was not thought to be due to pain it would have been appropriate to increase the dose of haloperidol infused to 10mg/24hr the upper limit of the haloperidol infusion dose range. If this did not relieve Patient E's symptoms it would have been appropriate to consider replacing the haloperidol with midazolam. However as outlined in my report to Hampshire Constabulary II consider the prescription and administration of midazolam with haloperidol and diamorphine in the doses prescribed to be inappropriate and highly risky because of the combined risk of these three drugs to produce respiratory depression and coma. If patient E had remained highly distressed on adequate doses of diamorphine analgesia and haloperidol and substitution of midazolam for haloperidol had not improved control of symptoms of distress and restlessness it would then have been reasonable to consider administering both haloperidol and midazolam to patient E with careful monitoring to ensure patient E's symptoms were controlled without unnecessary adverse effects.

19. Dr Barton stated that she used midazolam in patient E as a muscle relaxant (section 2.27 report to Hampshire Constabulary). This is not an appropriate use. The medical and nursing notes at the time of the midazolam prescription and administration do not contain any record of an assessment of tone or muscle stiffness in patient E. In my opinion the dose range of subcutaneous midazolam prescribed by Dr Barton was in excessively high. Older patients are more susceptible to midazolam and at increased risk of developing respiratory and central nervous system depression. The Wessex Protocols recommended a dose range of 10-60mg/24hr. In an older frail patient an appropriate starting dose would have been 10mg/24hr particularly when diamorphine had also been prescribed. The dose of 40mg/24hr hat was administered was inappropriately high and the upper limit of the dose range prescribed 80mg/24hr beyond that recommended. The prescribed dose range of midazolam prescribed particularly in conjunction with the diamorphine and haloperidol prescribed placed Patient E at high risk of developing life threatening complications.

20. I consider it likely that the diamorphine, midazolam and haloperidol infusions commenced on 18 August very likely produced respiratory depression and coma that led to her dying earlier than she would have done. However patient E required palliative care following her and was likely to die within a few days or weeks after her transfer back to Daedalus ward on 17 August and was likely to die within a short time period. The doses of subcutaneous diamorphine and haloperidol infusions administered were in my view appropriate but there was no justification in the medical notes for the prescription and administration of midazolam in addition to these drugs.

Summary of Conclusions

21. Patient E was a frail older lady with dementia who sustained a fractured neck of femur, which was successfully surgically treated but then complicated by dislocation and continuing pain following successful manipulation. She had a high risk of dying in hospital following these events. She was initially transferred to Daedalus ward with the aim of improving her

mobility before discharging her back to the nursing home she lived in. The information in the notes suggest there was inadequate assessment of patient E by Dr Barton as the doctor responsible for the day to day medical care of the patient when transferred to Deadalus ward on 11 August 1998. The medical notes record no evidence of hip pain at this time and no justification was provided for the prescriptions of oramorphine and subcutaneous diamorphine and midazolam. The prescriptions of subcutaneous infusions of diamorphine and midazolam in the wide dose ranges used were highly risky.

22. Patient E deteriorated rapidly after dislocating her hip on 14 August and treatment with opioids and haloperidol was appropriate. The medical records do not provide any justification for the prescription of midazolam by subcutaneous infusion or is administration on 18 August until Patient E's death on 21 August. In my opinion the midazolam infusion at the dose infused very likely led to respiratory depression and shortened patient E's life although at this stage she required palliative care and was likely to die within a few days or weeks.

23. In my opinion, Dr Barton in her care of Patient E failed to meet the requirements of good medical practice:
    - to provide a adequate assessment of a patient's condition based on the history and clinical findings and including where necessary an appropriate examination;
    - to keep clear, accurate contemporaneous patient records which report the relevant clinical findings, the decisions made, information given to patients and any drugs or other treatments prescribed;
    - to prescribe only the treatment, drugs or appliances that serve patients' needs.

24. I understand my duties as an expert, as set out at paragraph 57 of my Generic Report.

I believe that the facts I have stated in this report are true and that the opinions I have expressed are correct.

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GARY A FORD

GMC and Dr Barton
Supplementary Report on Gladys Richards (Patient E)

Professor Gary A Ford, FRCP
Consultant Physician

25 May 2009

GMC and Dr Barton
Supplementary Report on Patient E

1. This report is supplementary to my previous report dated 21 April 2009 and is made for the purpose of correcting drafting errors. All page number references in the report refer to the -123- format.

2. Section 2 line 4 "... service I undertook research into the effects of drugs in older people." changed to " ....service. I undertake research into the effects of drugs in older people."

Section 12 line 5	"..in the Wessex Protocol'..." corrected to " ... in the "Wessex Protocols"...".
Section 18 line 8	"..Constabulary II consider the prescription..." corrected to '..Constabulary I consider the prescription..."
Section 20 line 3	". ..required palliative care following her and was..." corrected to "required palliative care and was...".

3. I understand my duties as an expert, as set out at paragraph 57 of my Generic Report.

I believe that the facts I have stated in this report are true and that the opinions I have expressed are correct.

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