General Practitioner, Dr D

General Practitioner, Dr E

Accident and Medical Clinic

A Report by the

Health and Disability Commissioner

(Case 12HDC00281)

Health and Disability Commissioner
Te Toihau Hauora, Hauātanga

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Executive summary

Background

1. In 2011, Mrs A experienced a sudden onset headache. She was taken to an accident & medical clinic (the Clinic) by her friend, Mrs C, arriving around 5.30pm.

2. Mrs A was triaged and, a short time later, seen by a vocationally registered general practitioner, Dr D. Dr D did not obtain Mrs A's full history, including smoking history, and did not refer her to, or have a discussion with, the on-call medical registrar, contrary to the Clinic's policy on sudden onset headache. Dr D diagnosed Mrs A with a migraine brought on by alcohol, and prescribed Maxolon[1] to help with the nausea, and intramuscular Voltaren (diclofenac)[2] to help with the pain.

3. Because Dr D's shift finished at 6pm, she handed over Mrs A's care to another vocationally registered general practitioner, Dr E, for observation and monitoring following administration of the Maxolon and diclofenac.[3]

4. Dr E reviewed Mrs A twice. Following his second review, approximately 40 minutes after the administration of the Maxolon and diclofenac, Dr E noted that Mrs A's pain had decreased from 10/10 to 7/10 on a scale of one to ten, ten being the worst pain and zero being no pain. Dr E prescribed the oral medications Paracode,[4] diclofenac, and Antinaus,[5] and Mrs A was then driven home by Mrs C.

5. The following morning at about 7am, Mrs A collapsed but was conscious. Emergency Services were called and, by the time of retrieval, Mrs A was hypertensive, with a GCS of 5/15[6] and non-reactive pupils. She was taken to hospital and intubated and ventilated. A CT scan showed a large subarachnoid haemorrhage (SAH). The SAH was not amenable to treatment, and Mrs A was cared for palliatively, dying later that morning.

6. That afternoon, Dr D made an addition to her records to state that Mrs A's care had been handed over to Dr E, but Dr D did not annotate the addition as being retrospective.

Decision

7. By failing to obtain a full history and fully investigate the possible diagnosis of SAH, Dr D failed to exercise reasonable care and skill and breached Right 4(1)[7] of the Code of Health and Disability Services Consumers' Rights (the Code).

[1] Used to treat nausea and vomiting.
[2] Voltaren is the brand name for the non-steroidal anti-inflammatory drug diclofenac.
[3] The patient records state that Mrs A was administered Maxolon and diclofenac at 6pm by the practice nurse.
[4] Paracode is a pain relief medication containing paracetamol and codeine.
[5] Antinaus is used to treat nausea.
[6] The Glasgow Coma Scale (GCS) is a 15 point objective measure of a person's conscious state, with 15 being fully conscious and alert, a score of 7 indicating a coma, and a score of 5 suggesting severe brain injury.
[7] Right 4(1) of the Code states: "Every consumer has the right to have services provided with reasonable care and skill."

8. The Commissioner was critical of Dr D's actions in adding to her records but not annotating the addition as retrospective. Dr D was reminded of her obligation to ensure she maintains accurate clinical records.

9. The Commissioner considered that Dr E's records of his consultations with Mrs A were suboptimal. While Dr E was not found in breach of the Code, the Commissioner considered Dr E demonstrated a lack of critical thinking and was critical of the adequacy of Dr E's documentation.

10. The Commissioner found that the Clinic had adequate policies in place in relation to management of patients presenting with sudden onset headache. Therefore, the Commissioner found that the Clinic was not liable for Dr D's breach of the Code.

11. Although not the subject of this complaint, the Commissioner criticised the adequacy of the Clinic's complaints management in this case, and the actions of the nurses involved in Mrs A's care.

Complaint and investigation

12. The Commissioner received a complaint from Ms B about the services provided to her sister, Mrs A. The following issues were identified for investigation:

- *The appropriateness of the care provided to Mrs A by Dr D in early 2011.*
- *The appropriateness of the care provided to Mrs A by Dr E in early 2011.*
- *The appropriateness of the care provided to Mrs A by the Clinic in early 2011.*

13. An investigation was commenced on 21 March 2013.

14. The parties involved in the investigation were:

Mrs A	Consumer (dec)
Ms B	Complainant, Mrs A's sister
Mrs C	Mrs A's friend
Dr D	Provider, general practitioner
Dr E	Provider, general practitioner
The Clinic	Provider
Also mentioned in this report	
Mr A	Mrs A's husband

15. Expert advice was obtained from general practitioner Dr David Maplesden (**Appendix A**).

Information gathered during investigation

Background

16. At the time of the incident, Mrs A was a previously well and active 48-year-old mother of two with a past medical history of asthma, but no other medical history of note. According to her sister, Mrs A smoked around 30 cigarettes per day.

Onset of headache

17. At approximately 4.45pm one evening in early 2011, Mrs A's friend, Mrs C, and Mrs C's husband visited Mrs A and her husband, Mr A, at their home.

18. In a statement to HDC, Mrs C recalls that Mrs A smoked a cigarette and drank approximately half a glass of wine that evening. Mrs A went to her bedroom to change in preparation for a training session with a sports team.

19. Mrs C said that a couple of minutes after Mrs A left to change, her daughter came into the lounge and said, "Mum is on the floor holding her head."

20. Mrs C said that she immediately went to help and found Mrs A sitting on the floor of the bathroom. Mrs C recalls that Mrs A had vomited and was holding her head saying, "Make the pain go away." Mrs C said that she saw Mrs A vomit a small amount of clear fluid.

21. Mrs C advised HDC that Mrs A then sat on the toilet and passed diarrhoea. Mrs C recalls that Mrs A continued to hold her head while on the toilet.

22. Mrs C helped Mrs A to lie down on the bed. Mrs C said that Mrs A was visibly uncomfortable and in pain. Mrs C knew that Mrs A had had a lunch meeting, and asked whether she had had anything else to drink, or taken anything she should not have, such as medication. Mrs A replied that she had not. Mrs C suggested that Mrs A see a doctor. Mrs A was initially reluctant to do so, but agreed after further discussion.

23. Mrs A was unable to support herself and was assisted to the car by Mrs C and Mr A. Mrs C then drove Mrs A and her daughter to the Clinic, which took 15–20 minutes. During the journey, Mrs A was nauseous and in pain, and required her seat to be reclined.

The Clinic

24. The Clinic is an after-hours medical centre.

25. Once at the Clinic, Mrs C went inside while Mrs A remained in the car. Mrs C told the reception staff that Mrs A required a wheelchair as she was unable to walk by herself. Mrs C assisted Mrs A into the wheelchair and wheeled her inside. Once inside, Mrs C filled out the relevant forms and Mrs A was taken into a consultation room.

26. The Clinic's policy (in place at the time of this incident) for the management of sudden onset headache states:

> "Any patient presenting with a history of **sudden onset headache** must have the possibility of **intracranial bleed** included in the diagnosis and **be discussed with the on call Medical Registrar** … Any patient with acute or recent **sudden** onset headache, regardless of other perceived causes for that headache or co-existing medical history, needs to have their case discussed with the on call Medical Registrar with the view to hospital admission." [emphasis in original]

Triage

27. Mrs A was seen by the triage nurse at 5.35pm. In the clinical records the triage nurse documented:

> "Getting ready for [sport] at 5pm and felt faint, nausea, headache, vomit × 1 and diarrhoea × 1
> Now nausea, severe headache
> [No known drug allergies]
> [History] — asthma
> Meds — purple inhaler
> [On examination] Alert, not distressed, anxious, [temperature] 36.7,[8] [pulse] 72,[9] [blood pressure] 120/80,[10] triage 4[11]"

28. Mrs C said that, at the end of the consultation, Mrs A complained that she did not like the lights. Mrs C recalls that she asked the nurse to turn the lights down, and the nurse told her where the light switch was. Mrs C said that the nurse seemed "put out" by this request but then turned the lights off.

Consultation with Dr D

29. Mrs A remained in the consultation room. A short time later Dr D arrived.

30. Dr D is a vocationally registered general practitioner. Dr D has worked in general practice in New Zealand for many years. She has worked for the Clinic intermittently since 2008. At the time of this incident, Dr D was rostered on a shift finishing at 6pm.

31. Dr D initially took a history, noting that Mrs A was presenting with a sudden onset severe frontal headache, that she had had a glass of wine, that at the time of onset of the headache she had to lie down, and that she had vomited and passed a loose bowel motion. Dr D advised HDC that, on questioning, Mrs A stated that she had no family or past history of migraines, and she had no recent head injury. Dr D advised that although she is unable to recall the details of the consultation specifically, she routinely asks all patients about their smoking history, and if she had been advised of anything significant she would have investigated further, which she did not do in this case.

[8] Normal body temperature for an adult ranges from approximately 36.5°C to 37.5°C.
[9] Normal pulse for an adult ranges from 60 to 100 beats per minute.
[10] Normal blood pressure for an adult ranges from approximately 100/60mmHg to 140/90mmHg.
[11] Triage 4 category indicates that the patient should be seen within 60 minutes.

32. In contrast, Mrs C advised that Mrs A had been clear that she was a smoker and that the headache started after she had had half a glass of wine and a cigarette. Mrs C is sure that Dr D was aware that Mrs A was a smoker.

33. In the clinical records Dr D documented:

> "[P]erfectly well. Has [sic] glass of wine at 5pm — went to get changed — sudden onset of severe frontal headache — she laid down [sic] — got up — vomited once and had one loose motion. Now has severe headache and photophobia. No past history of migraines and no recent head injury."

34. On assessment, Dr D noted that Mrs A was lying in a dark room, that her pupils were equal and reactive to light, and that she had no facial asymmetry or neck stiffness. Dr D noted that Mrs A had no raised glands in her neck, no rash, abdominal tenderness or guarding, and normal bowel and heart sounds.

35. Following her assessment, Dr D diagnosed Mrs A with a migraine brought on by alcohol, and documented "migraine headaches ppt [precipitated] by alcohol". Dr D prescribed Maxolon to help with her nausea and intramuscular diclofenac to help with her pain. Dr D requested that Mrs A remain in the practice to be monitored following administration of the diclofenac. Dr D then left the consultation room.

36. Mrs C recalls that, following Mrs A's examination, Dr D informed Mrs A that her symptoms might be food poisoning or alcohol induced. Mrs C said that, being a trained nurse, she knew that Mrs A was not suffering from food poisoning or a migraine, and asked to see another doctor. Mrs C recalls that Dr D then left the consultation room.

37. Mrs C said that following Dr D's departure she went to the nurses' station to ask for a blanket because Mrs A was cold. Mrs C recalls that a nurse fetched a blanket but appeared uncaring. Shortly afterwards, Dr D returned to advise that her shift was ending, and that Mrs A had been handed over to another doctor.

38. In contrast, in a statement to HDC, Dr D stated:

> "… I did not conclude that [Mrs A] had a migraine precipitated by alcohol. [Mrs A] advised me that she had had a glass of wine but I did not assume that the alcohol was the cause of her headache. I took a detailed account of [Mrs A's] symptoms and history and undertook a full examination. Following doing so my impression was that her symptoms were likely to be caused by a migraine to which I discussed with her along with a plan to give her an injection of diclofenac and maxolon for the pain and nausea. …
>
> The initial diagnosis of a migraine was made, not only from [Mrs A's] history but also from my clinical examination which did not suggest any other sinister cause of her symptoms."

39. In response to the provisional opinion Dr D stated that it was her assessment that Mrs A was not presenting with the outward classical signs of SAH. However, she

commented: "I could have sent [Mrs A] home after the consultation but I was sufficiently concerned about her that I had her remain for pain relief and further review".

40. Dr D does not recall Mrs C expressing any concern regarding her provisional diagnosis or management plan.

Administration of medications

41. At approximately 6pm a nurse gave Mrs A 10mg of Maxolon and 75mg of intramuscular diclofenac.

Handover of care

42. Dr D explained that, because her shift finished shortly after the completion of her consultation with Mrs A, she verbally handed over care to the next doctor on duty, Dr E. Dr D advised Dr E of her findings and plan, and asked him to review Mrs A in 20 minutes to assess her headache and response to the medications.

43. Dr D advised that it was her understanding that "the receiving doctor would follow up assessment and diagnosis of the patient and any further treatment/referral."

Dr E's consultation

44. Dr E is a vocationally registered general practitioner employed by the Clinic. On the day of this incident, Dr E was rostered on a shift commencing at 6pm.

45. In a statement to HDC, Dr E advised that Dr D "briefly discussed" Mrs A's case with him in the corridor at the end of her shift. Dr D advised him that she had diagnosed Mrs A with a migraine, and that Mrs A had been given Maxolon and diclofenac and was resting in the consultation room so that she could be monitored. Dr E stated that Dr D asked him to monitor Mrs A following the administration of the medication, but did not ask him to provide a second opinion.

46. Dr E advised HDC that, following his conversation with Dr D, he explained briefly to Mrs A that he would be checking on her. At this time, Dr E observed that Mrs A was resting in a darkened room, with her daughter and friend present.

47. Dr E advised that he reviewed Dr D's record of her consultation, noting Mrs A's history. In a statement to HDC, Dr E advised that he then carried out a general assessment of Mrs A, although he did not document his findings. Dr E advised Mrs A and Mrs C that the medications would take approximately 40 minutes to take effect, and that he would be back to reassess her.

48. In his statement to HDC, Dr E said that he returned to assess Mrs A approximately 40 minutes later. At this time, he asked Mrs A whether she was feeling better and if her headache had improved. He asked her to rate her pain on a scale of one to ten (ten being the worst pain and zero being no pain). Mrs A told Dr E that her pain had been 10/10 prior to the medications and was now 6–7/10. Dr E asked Mrs A to confirm that there had been a 30–40% improvement, and Mrs A confirmed this was correct. In light of this improvement, Dr E was reassured that the diagnosis of migraine was most likely. He discussed the diagnosis with Mrs A and Mrs C, prescribed oral pain relief

and anti-nausea medications (Antinaus, diclofenac and Paracode), and advised Mrs A to either return to the Clinic or to go to hospital if the pain did not improve. Dr E noted that he would be on duty that evening if they had any further concerns. Dr E stated:

> "[Mrs A] was responsive to my questions, without any obvious confusion or difficulty in talking. She had not vomited or exhibited any new symptoms over the period she had been at [the Clinic]. I discussed with her friend the possible causes to her headache (other than migraine) including haemorrhage. I felt given my experienced colleague's impression following her examination, and the improvement in pain with medication, that migraine was most likely."

49. Dr E contemporaneously documented in the consultation notes:

> "Imp head ache
>
> started on med, patient felt better after she had her inj, by 30–40%"

50. There is no other contemporaneous documentation of Dr E's assessment findings or management plan. Dr E said he did not write comprehensive notes because he was asked only to monitor Mrs A following the administration of the medications, and not asked to provide a second opinion. Dr E stated:

> "I read the notes recorded by [Dr D] and concurred that the history and the absence of any neurological signs on thorough examination were consistent with migraine. Therefore, I did not feel there was any indication for me to repeat the history."

51. In a retrospective note made the following day, Dr E documented:

> "I saw [Mrs A] on [date] after she had been assessed and examined and treated by [Dr D] at 6pm.
>
> This happened @ 6pm when [Dr D] [handed] over the patient to me for f/u [follow-up].
>
> The patient stayed with us for approximately thirty to forty min during that time I did visit her twice to see how she is progressing on my 2nd visit I did asked her how did she feels [sic] and if the headache improved.
>
> How she consider the pain before and after her injection … She told me it is better and it is 6–7 out of ten.
>
> Also on doing quick neurological scan on her
>
> 1 — she was responding to my Qs
>
> 2 — no visual problems
>
> 3 — no vomiting
>
> I discussed with her caregiver about other possibility of headache's [sic] (brain haemorrhage) and also other causes of headaches.

> But according to patient history and examination and the notes that was done by [Dr D]. And because the patient felt better after having her injection I thought the pain most likely migraine kind of headache. …"

52. Mrs C confirmed that Mrs A stated that her headache had improved from 10/10 to 7/10 after the medications. Mrs C recalls that Dr E prescribed Mrs A some medications and commented to her, "Your friend is not having an aneurism [sic], probably a migraine, induced by alcohol and I'll give you pain relief to go home with."

53. Mrs C told HDC that she is not sure what prompted Dr E to state that Mrs A was not having an aneurysm, but thinks that it may have been because he could see how anxious they were.

Return home

54. In her statement, Mrs C advised that Mrs A was still in "considerable pain", but by that stage she was agitated by the time taken and the diagnosis, and asked to be taken home. Mrs C left Mrs A lying in the darkened room while she collected the medication.

55. Mrs C returned with the medication and took Mrs A to the car in a wheelchair, as she was still unstable on her feet. Mrs C said that no one from the Clinic offered to assist her.

56. Mrs C recalls that, once in the car, Mrs A reclined in the passenger seat and said that the pain had eased a little. As they approached the intersection by the hospital, Mrs C asked Mrs A if she would like to go to the hospital, but Mrs A declined.

57. Mrs C and Mrs A arrived home at approximately 8pm. Mrs A walked into the house unassisted, and Mrs C helped her to bed.

The following day

58. Mr A advised HDC that, at approximately 1am the following day, Mrs A got up, still complaining of a severe headache, and took the prescribed medications. At approximately 7am, she went into her son's bedroom and collapsed. Her son went to Mr A, who found Mrs A lying on the floor. Mr A said that he carried his wife to the bathroom and sat her on the toilet, as she had started to go on the floor. He then called emergency services, who advised him to place his wife in the recovery position and to keep talking to her. Mr A said that the emergency services arrived after about 15 minutes.

59. The emergency services staff assessed Mrs A as having a GCS of 5, and blood pressure of 230/100mmHg. Mrs A's pupils were constricted and non-reactive to light.

60. Mrs A was transported to hospital, where she was intubated and ventilated. A CT scan of her head showed a large SAH with an intraventricular haemorrhage and tonsillar herniation.[12]

[12] An extensive bleed in her brain.

61. Mrs A was admitted to the intensive care unit but, due to the extent of the bleed, the decision was made not to treat her actively. Mrs A was given comfort cares and died later that morning.

Additional comment from Dr D

62. In her statement to HDC, Dr D advised that she considered the possibility of intracranial haemorrhage but considered that, apart from the sudden onset of the headache, Mrs A did not have the classic symptoms such as hypertension, severe neck stiffness, or paralysis of the face or limbs.

63. Furthermore, Dr D stated:

> "When assessing [Mrs A] I was careful to investigate and record her history and I reported that features that may have aroused further suspicion were not present (neck stiffness, hypertension) nor did I consider that there were any factors that may have put [Mrs A] at increased risk of SAH (such as smoking, family history of aneurysm or consumption of medications known to increase the risk of SAH)."

64. Dr D noted the difficulty in diagnosing SAH and that delays in diagnosis are common. However, Dr D advised that following this incident she is now much more alert to the possibility of SAH in the management of patients presenting with a headache, and has a lower threshold for referring patients presenting with headaches to secondary care.

65. Dr D advised that she has also recently attended the Mastering Adverse Outcomes and Mastering Professional Interactions workshops run by the Medical Protection Society.

Additional comment from Dr E

66. In his statement to HDC, Dr E advised:

> "This case raises the important issue of the responsibility of a 'receiving' doctor of a handover in a primary care setting. … I was not asked to provide a second opinion or a review of the diagnosis. I understood that I was asked to monitor her response to treatment and manage her accordingly. I read the notes recorded by [Dr D] and concurred that the history and the absence of any neurological signs on thorough examination were consistent with migraine. Therefore, I did not feel there was any indication for me to repeat the history. In retrospect I now appreciate that it is unusual to develop migraine for the first time at 50."

67. Dr E also stated:

> "I believe it would be of concern to many doctors if a standard was set where they were required to repeat a full assessment and write a full set of notes when asked to follow up on a patient already assessed by another doctor unless the particular circumstances made this necessary."

68. Dr E said that he no longer relies so heavily on the previous notes when asked to follow up a patient, and he would now always conduct his own full assessment to confirm a diagnosis. Dr E stated that he now has a lower threshold for referring patients to hospital or discussing the case with the on-call medical registrar. Dr E also

stated that he now ensures that he documents his consultations more fully, particularly when a patient is referred to him for follow-up.

Additional comment from the Clinic

69. Following this incident, the Clinic advised that it has made the following changes:

Policies and procedures

- It has developed a new policy for the management of headache (not sudden onset).

- An 'In Clinic Observation' policy has been drafted to ensure patients who are at a higher risk of deterioration are monitored appropriately while they remain at the Clinic and that a set of observations are recorded to help inform the decision to discharge.

- The Clinical Notes policy has been reviewed to state that any additions to a clinical record should be clearly annotated as being retrospective.

- The Triage policy has been reviewed to include a specific caution in relation to sudden onset headache that: "**Sudden onset headache** is a sub-arachnoid haemorrhage unless excluded."

- It has reviewed its complaint and incident review process, including development of the process for formally documenting and reviewing incidents and complaints to ensure that any necessary changes to policies and practices are implemented.

- All new medical staff have a documented comprehensive orientation through all policies and protocols.

- It has developed a Doctor's Resource Manual which contains the Clinic's policies for clinical handover, sudden onset headache, acute coronary syndrome, and ambulance transfer. It also contains specific cautions with regard to sudden onset headache presenting in Urgent Care.

- It is developing an "advisory file" to be accessible via its computer system. This will include the Clinic's policies in greater detail and will be the repository for all advice to staff from the medical director.

- The Clinical Handover policy has been updated to highlight the need for the retiring doctor to provide diagnosis and discussion of differential diagnosis with reasoning. In addition, the receiving doctor has ongoing independent clinical responsibility and should satisfy themselves as to diagnosis.

- All staff are required to sign a "read and understood form" stating that they are aware of all the Clinic's policies.

Supervision and clinical oversight

- The Clinic has appointed a Senior Medical Officer to provide more direct oversight of clinical and operational issues. The Senior Medical Officer acts as an advisor to the Board and Management.

- It has appointed a doctor to provide review of policies and procedures, clinical audit and doctor appraisal.

- The Clinic has recently surveyed all its doctors to identify areas for further training. It has appointed an Education Officer specifically to develop training sessions to address deficiencies that have been identified.

- It conducts regular audits of clinical records.

- Monthly management meetings are held to discuss medical, training and policy issues.

- Clinical training sessions are held to discuss pertinent clinical operational matters.

70. In addition to the policy and procedural changes, the Clinic advised its management structure has been reviewed and that the Board of Directors (the Board) and a new management team are now responsible for the management of the Clinic. This has resulted in the Board having more involvement in the operation of the Clinic and clinical standards. In addition, more time has been made available to the Senior Medical Officer and Medical Director to provide clinical oversight and reporting.

71. The Clinic advised that, in part in response to this incident, there is now increased monitoring of all the competencies of its doctors, primarily using X-ray and laboratory report comparison to clinical notes, as well as twice yearly documentation audits.

72. The Clinic advised HDC that after it was informed of Mrs A's death, an investigation was carried out. However, although the case was widely discussed and reviewed, there is no documentation of the investigation. The Clinic acknowledges that this process should have taken place as a formal complaint/incident process. The Clinic stated:

> "As a result of this incident, [the Clinic's] response in future to such an event will include formal investigation of the incident to check correct actions and outcomes from staff and systems. Any deficiencies or weaknesses found can then be addressed through changes in procedure and protocol. We will more formally record and disseminate information to staff to ensure our learning outcomes. Procedures and protocol review has put this issue to the foreground for management and this will inform and guide incoming staff and Boards of Directors."

73. The Clinic advised that to address the issues identified in the provisional report with regards to the attitude of its nursing staff it plans to review its "Company Culture".

74. The Clinic expressed its "sincere apologies and condolences" to Mrs A's family.

Standards

75. The Medical Council of New Zealand publication *Good medical practice: a guide for doctors (2009)* states:[13]

> "2. Good clinical care includes:
> - adequately assessing the patient's condition, taking account of the patient's history and his or her views and examining the patient as appropriate …
> - taking suitable and prompt action when needed
> - referring the patient to another practitioner when this is in the patient's best interests."

76. The Medical Council of New Zealand publication *The Maintenance and Retention of Patient Records* (August 2008) states:[14]

> "**Introduction**
> Records form an integral part of any medical practice; they help to ensure good care for patients and also become critical in any future dispute or investigation.
>
> 01. Maintaining patient records
> (a) You must keep clear and accurate patient records that report:
> - Relevant clinical findings.
> - Decisions made.
> - Information given to patients.
> - Any drugs or other treatment prescribed.
>
> (b) Make these records at the same time as the events you are recording or as soon as possible afterwards."

77. The Medical Council of New Zealand publication *Good medical practice: a guide for doctors (2009)* states:[15]

> "Sometimes on reviewing an earlier record entry, a doctor may feel that it is inaccurate, incomplete or potentially misleading. It is appropriate to augment a record in such cases, making it clear when and by whom the augmentation or annotation was added."

[13] Available at http://www.mcnz.org.nz/news-and-publications/good-medical-practice/
[14] Available from www.rnzcgp.org.nz.
[15] Available at http://www.mcnz.org.nz/news-and-publications/good-medical-practice/

Opinion — Introduction

78. This is a case where a patient was misdiagnosed with a migraine headache, despite never previously having suffered a migraine, presenting with symptoms indicative of a subarachnoid haemorrhage, and having the increased risk factor of being a smoker.

79. Mrs A, a previously fit and well 48-year-old, experienced a severe, sudden onset headache. She was taken to the Clinic by her friend, Mrs C, arriving at around 5.30pm.

80. This report considers the actions of the two doctors who saw Mrs A at the Clinic, as well as the system that they were working under.

Breach — Dr D

Assessment and diagnosis

81. Dr D, a vocationally registered general practitioner, saw Mrs A shortly after her arrival at the Clinic.

82. Dr D obtained and documented a history from Mrs A, noting that she had suffered a sudden onset headache and collapsed, had vomited once and experienced diarrhoea. Dr D noted that Mrs A had had one glass of wine prior to the onset of the headache, and had no significant medical history and no history of migraines or recent head injury. Dr D conducted and documented a physical examination, including neurological and cardiovascular examinations, all of which were normal. Following her examination, Dr D diagnosed "migraine headaches ppt by alcohol", and recommended intramuscular Maxolon to treat Mrs A's nausea, and diclofenac to treat her pain.

History taking

83. There were two errors in Dr D's history taking. First, it appears from the clinical notes that Dr D assumed that Mrs A's headache was alcohol related, despite being aware that Mrs A had had only one glass of wine that evening. Although moderate to heavy alcohol intake is a known risk factor for SAH, there is no evidence that Mrs A was asked about her habitual intake of alcohol.

84. Secondly, there is no mention of Mrs A's smoking in the records, despite Mrs A smoking around 30 cigarettes per day. Dr D advised HDC that it is her standard practice to ask about a patient's smoking habits and to record any significant information. However, there is no evidence in the records that she did so on this occasion.

Diagnosis of SAH

85. Dr D failed to appreciate the significance of Mrs A's symptoms, and take appropriate steps to exclude a diagnosis of SAH. Further, the Clinic's policy on Sudden Onset Headache began with the following statement:

> "Any patient presenting with a history of **sudden onset headache** [the Clinic's emphasis] must have the possibility of **intracranial bleed** included in the diagnosis and **be discussed with the on call Medical Registrar** … Any patient with acute or recent **sudden** onset headache, regardless of other perceived causes for that headache or co-existing medical history, needs to have their case discussed with the on call Medical Registrar with the view to hospital admission."

86. The Medical Council of New Zealand publication *Good medical practice: a guide for doctors (2009)* states:

> "Good clinical care includes:
>
> - adequately assessing the patient's condition, taking into account the patient's history and his or her views and examining the patient as appropriate …
> - taking suitable and prompt action when needed
> - referring the patient to another practitioner when this is in the patient's best interests."

87. Dr Maplesden advised that:

> "there were clear features in [Mrs A's] presenting history that indicated SAH required exclusion before a diagnosis of first ever migraine could be made. These features included: [Mrs A's] age (48 years) without prior history of migraine or headache; sudden onset of severe headache (thunderclap) with vomiting at onset ... associated photophobia … which, in my opinion, should have led to inclusion of possible SAH in the differential diagnosis and triggered the need for emergency specialist review or advice. This should have happened whether or not a smoking history was recorded."

88. Dr Maplesden also advised that the diagnosis of SAH is difficult and that misdiagnosis and delays in diagnosis, even in patients with a characteristic history, are common. However, for this reason, he advised that a high index of suspicion is required, particularly in light of the serious, and potentially fatal, implications of a delayed or missed diagnosis. He noted that "[t]he complaint of the sudden onset of severe headache is sufficiently characteristic that a minor SAH should always be considered".

Conclusion

89. There were errors in Dr D's history taking, specifically with regard to Mrs A's smoking status and alcohol consumption.

90. I note Dr D's submission that had her shift not finished she would have reviewed Mrs A again. Dr D further submitted that by handing over Mrs A's care to Dr E it was her understanding that he would review Mrs A, including the diagnosis.

91. However, the fact remains that Dr D failed to fully investigate the diagnosis of SAH through either referral to, or discussion with, the on-call medical registrar in

accordance with the Clinic's policy. I note Dr Maplesden's advice that this would be viewed as a moderate departure from expected standards. I conclude that Dr D failed to provide services to Mrs A with reasonable care and skill and, consequently, breached Right 4(1) of the Code. It is important to emphasise that the outcome for Mrs A may have been no different if Dr D had made the referral. Dr Maplesden commented:

> "It cannot … be assumed that, had [Mrs A] received appropriate specialist care on [in early] 2011, she would necessarily [have] had a favourable outcome. Nevertheless, she was denied that opportunity."

Adverse comment — Dr D

Documentation

92. Because Dr D's shift finished at 6pm, she handed over Mrs A's care to Dr E for follow-up and observation following the administration of the Maxolon and diclofenac. The day after the consultation, Dr D added to her consultation note the comment "the care of the patient was handed to [Dr E]".

93. The Medical Council of New Zealand publication *Good medical practice: a guide for doctors* states:

> "Sometimes on reviewing an earlier record entry, a doctor may feel that it is inaccurate, incomplete or potentially misleading. It is appropriate to augment a record in such cases, making it clear when and by whom the augmentation or annotation was added."

94. While I accept that it is not unusual for records to be added to retrospectively, they should be clearly documented as such.

95. I note Dr Maplesden's advice that this addition to the record without it being identified as retrospective was unwise. However, as the comment was simply confirming what had already been observed, the unidentified retrospective addition would be viewed as a mild departure from expected standards.

96. Although I do not consider that this warrants a finding that Dr D breached the Code, I remind Dr D of the importance of ensuring that any change or addition to a clinical record is clearly documented as such.

Adverse comment — Dr E

Standard of care

97. At the end of her shift, at approximately 6pm, Dr D handed over Mrs A's care to Dr E. Although Dr D did not document until the following day the fact that she had

handed over care to Dr E, I accept that Dr E was asked to monitor Mrs A following the administration of the Maxolon and diclofenac, rather than to provide a second opinion.

98. Dr E carried out his own examination of Mrs A, noting Dr D's diagnosis of migraine. Dr E then reassessed Mrs A approximately 40 minutes after the administration of the medications, noting that there had been some improvement.

99. I note Dr Maplesden's advice that, although Dr E had the opportunity to reconsider the diagnosis, in his view, taking into account Mrs A's moderate improvement and the absence of any new symptoms, Dr E's acceptance of Dr D's diagnosis was "most likely consistent with expected standards".

100. However, in my opinion, Dr E displayed a lack of critical thinking. There was a lost opportunity for Dr E to ask further questions given his knowledge of Mrs A's symptoms. Had Dr E simply confirmed whether Dr D had followed the Clinic's policy for the management of sudden onset headache by discussing Mrs A's case with the on-call medical registrar, he would most likely have been prompted to fully assess Mrs A rather than accept Dr D's diagnosis. Nonetheless, I accept Dr Maplesden's advice, and acknowledge that it is common practice in an accident and medical setting for a second doctor to be asked to assess a patient's response to treatment. I therefore conclude, although with some reservation, that in the circumstances it was reasonable for Dr E to rely on Dr D's diagnosis, as he had no reason to believe it was not clinically sound. Had Mrs A shown no improvement, or presented with any new symptoms, Dr E would have had a responsibility to review the diagnosis.

Documentation

101. Dr E saw Mrs A on two separate occasions, initially completing a neurological assessment of Mrs A and then discussing with her the confirmed diagnosis of migraine and the management plan. However, Dr E did not adequately document his assessment of Mrs A or his discussions with her.

102. I note Dr E's submission that, because he was asked to monitor Mrs A following the administration of the Maxolon and diclofenac, and not asked to provide a formal second opinion, he did not write full consultation notes. Furthermore, Dr E considers that it would be unreasonable to expect a doctor asked to monitor a patient to repeat a full assessment and document the findings.

103. I accept that it would not be reasonable for a doctor to repeat a full assessment and document a full set of notes when asked solely to monitor a patient. However, in this case, Dr E did not solely monitor Mrs A; he completed his own assessment and provided Mrs A with advice and a management plan.

104. The Medical Council of New Zealand publication *The Maintenance and Retention of Patient Records* (August 2008) states that doctors must keep clear and accurate patient records that report relevant clinical findings, decisions made, information given to patients, and any drugs or other treatment prescribed.

105. Dr E's records are not an accurate reflection of his assessment and management of Mrs A. Dr E should have documented the details of the assessment he carried out and his subsequent discussions with Mrs A.

106. While I do not consider that Dr E's failures warrant a finding that he breached the Code, I remind Dr E of the importance of fully documenting all aspects of his consultations.

107. I note Dr E's advice that he now has a lower threshold for consultation with the medical registrar when patients present with sudden onset headache.

Adverse comment — The Clinic

Vicarious liability

108. Under section 72(2) of the Health and Disability Commissioner Act 1994 (the Act), an employing authority may be vicariously liable for acts or omissions by an employee.

109. As Dr D is an employee of the Clinic, consideration must be given as to whether it is vicariously liable for her breach of the Code. Under section 72(5), it is a defence for an employing authority to prove that it took such steps as were reasonably practicable to prevent acts or omissions leading to an employee's breach of the Code.

110. In early 2011 the Clinic had appropriate policies in place for the management of patients presenting with sudden onset headache. I am satisfied that this policy was available to all staff. As discussed above, Dr D made a clinical decision and, in doing so, departed from expected standards for the management of a patient presenting with a sudden onset headache.

111. In my view, Dr D's failures cannot be attributed to the system she was working in, and I conclude that the Clinic is not vicariously liable for Dr D's breach of the Code.

112. I note that the Clinic has since reviewed its orientation procedure to ensure that clinic policies for sudden onset headache are more readily accessible in the doctor's office and consultation rooms. The Clinic has developed a new policy for the management of severe headache such as migraine. In addition, its clinical handover policy has been reviewed to highlight the need for the retiring doctor to provide diagnosis and discussion of differential diagnosis with reasoning.

Incident management

113. Following the commencement of this investigation, the Clinic identified that at the time of the incident, and after having been notified of Mrs A's death, there was a lack of formal investigation and inadequate documentation of the investigation process that was undertaken.

114. I am critical of the Clinic's management of this incident, and I note that the Clinic has since reviewed its incident review process. I note the Clinic's advice that, as a result of the incident, it will now ensure that a formal investigation is conducted and documented at the time a complaint is received, to allow issues to be identified and addressed immediately.

Nurses

115. Part of Ms B's complaint relates to the attitude of the nurses involved in Mrs A's care. Ms B said that one of the reasons Mrs A decided not to go to hospital after she left the Clinic was that the Clinic's nursing staff made her feel as if she was an inconvenience. Mrs C said that the nurses were unhelpful and appeared "put out" by requests for assistance, such as when Mrs C asked for the lights to be turned down and requested an extra blanket because Mrs A was cold.

116. Statements have been obtained from the nurses involved in Mrs A's care. Unfortunately, none of the nurses recall the specific details of Mrs A's consultation. However, all deny being unhelpful or rude to Mrs A.

117. It is concerning that, according to Mrs C, Mrs A was made to feel like an inconvenience. However, due to the lack of supporting evidence I am unable to reach a conclusion about what actually happened during Mrs A's consultation. I trust that the Clinic will use this case as an example to remind staff of the importance of ensuring they behave in a caring and respectful manner. I note that the Clinic is now reviewing its "company culture".

Recommendations

118. I recommend that the Medical Council of New Zealand consider whether a review of Dr D's competence is warranted.

119. I recommend that the Clinic confirm the implementation of its 'Headache' and 'In-Clinic Observation' policies, conduct a review of the effectiveness of these policies and report back to this Office by **17 March 2014**.

120. I also recommend that the Clinic provide details of how it plans to review its "Company Culture" and the outcome of the review by **17 March 2014**.

121. The following recommendations made in my provisional opinion have been complied with:

- Dr D has provided an apology to Mrs A's family.
- Dr E has provided an apology to Mrs A's family.

Follow-up actions

122. • A copy of this report with details identifying the parties removed, except the expert who advised on this case, will be sent to the Medical Council of New Zealand, and it will be advised of the names of Dr D and Dr E.

123. • A copy of this report with details identifying the parties removed, except the expert who advised on this case, will be sent to the District Health Board.

124. • A copy of this report with details identifying the parties removed, except the expert who advised on this case, will be sent to the Royal New Zealand College of General Practitioners, and it will be advised of Dr D's name.

125. • A copy of this report with details identifying the parties removed, except the expert who advised on this case, will be placed on the Health and Disability Commissioner website, www.hdc.org.nz, for educational purposes.

Appendix A — Independent advice to the Commissioner

The following expert advice was obtained from Dr David Maplesden:

"1. My full name is Dr David Vaughan Maplesden. I qualified MBChB from the University of Auckland in 1983. I achieved a Diploma in Obstetrics in 1984 and FRNZCGP in 2003. I have practised as a full-time General Practitioner since 1986 and part-time General Practitioner since 2005. I have been asked to provide advice regarding the management of [Mrs A] (dec) by [Dr D] and [Dr E] at [the Clinic] [in early] 2011. [Mrs A] was diagnosed with migraine and discharged from the clinic but collapsed the following morning and subsequently dies as the result of a subarachnoid haemorrhage (SAH). As a basis for comments made regarding appropriate standards of care I have used the following sources (cited in the body of the report where appropriate): for recommended local best practice advice I have used a publication from the Best Practice Advocacy Centre (BPAC) on headache management in primary care; for an international perspective on all aspects of SAH I have used a journal review service (Uptodate) and a British Medical Journal review article; I have also referred to [the Clinic's] policy document on Sudden Onset Headaches, in force at the time of the events in question.

2. I have examined the documentation provided: complaint from [Ms B], sister of [Mrs A]; statement from [Mrs C] (a registered nurse and friend of [Mrs A] who witnessed the events in question); responses from GPs [Dr D] and [Dr E]; GP notes; [the Clinic's] management response including relevant policy documents. My response is limited to clinical aspects of the complaint.

3. Complaint from [Ms B] and statement from [Mrs C]: [Ms B] states her sister was a well 48 year old when she attended [the Clinic] [in early] 2011. [Mrs A] had had half a glass of wine with friends and then gone to prepare for [a session with a sports] team. [Ms B] states (observations supported by [Mrs C]) that her sister *collapsed complaining of a sudden onset of severe frontal head pain…then proceeded to vomit once and had a loose bowel motion…the pain did not cease* and she was taken to [the Clinic] by friends who carried her out to the car. [Mrs C] makes it clear she was very concerned about [Mrs A] because she had no past history of headaches, and this headache had had a very sudden onset and was sufficiently intense to cause [Mrs A] to vomit and be unable to support herself.

4. At [the Clinic] [Mrs A] complained of photophobia and needed the lights dimmed. She was examined by [Dr D] and a diagnosis of migraine secondary to alcohol was made. [Mrs C] requested a second opinion as she was concerned at the severity of the headache and lack of previous migraine history. The second doctor ([Dr E]) concurred with [Dr D's] diagnosis and [Mrs A] was discharged with Paracode, diclofenac and Antinaus. There was apparently some response to the analgesia administered at [the Clinic] (pain decreased from 10/10 to 7/10 prior to discharge). [Mrs A] arrived home about 2000hrs and required regular pain relief for the persistent headache. [Early the following day] [Mrs A] collapsed in her son's bedroom but was conscious and nauseated. Ambulance was called and by

the time of retrieval [Mrs A] was hypertensive, GCS 5/15 with non-reactive pupils. She was taken to [hospital], inubated and ventilated. CT scan showed *a large subarachnoid haemorrhage with intraventricular haemorrhage and tonsillar herniation.* The bleed was not amenable to therapy and [Mrs A] was treated palliatively, dying later that morning. [Ms B] is critical of the care given at [the Clinic], particularly the failure by staff to consider subarachnoid haemorrhage (SAH) as a cause of her sister's symptoms.

5. Background[1]: Most SAHs are caused by ruptured saccular aneurysms and I presume this was the case with [Mrs A]. Aneurysmal SAH occurs at an estimated rate of 3 to 25 per 100,000 population and most occur between 40 and 60 years of age ie [Mrs A's] age group. However, young children and the elderly can be affected. There is a slightly higher incidence of aneurysmal SAH in women, which may relate to hormonal status. There are multiple risk factors for SAH — most important preventable risk factor for SAH is cigarette smoking and [Dr D] stated in her response [Mrs A] was a non-smoker (but see later discussion); hypertension is a major risk factor for SAH but there is no evidence [Mrs A] suffered from this; moderate to heavy alcohol intake is another known risk factor and [Mrs A's] habitual intake is not documented. There was no family history of aneurysm recorded and there does not appear to be consumption of any medications known to increase risk of SAH. Rupture of an aneurysm releases blood directly into the cerebrospinal fluid (CSF) under arterial pressure. The blood spreads quickly within the CSF, rapidly increasing intracranial pressure. The bleeding usually lasts only a few seconds, but re-bleeding is common and occurs more often within the first day as may well have occurred with [Mrs A] on the morning [that she died]. Consistent with the rapid spread of blood, the symptoms of SAH typically begin abruptly, occurring at night in 30 percent of cases. The premier symptom is a sudden, severe headache (97 percent of cases) classically described as the 'worst headache of my life'. The headache is lateralized in 30 percent of patients, predominantly to the side of the aneurysm. The onset of the headache may or may not be associated with a brief loss of consciousness, seizure, nausea or vomiting, and meningismus. Approximately 30 to 50 percent of patients have a minor haemorrhage or 'warning leak', manifested only by a sudden and severe headache (the sentinel headache) that precedes a major SAH by 6 to 20 days. The complaint of the sudden onset of severe headache is sufficiently characteristic that a minor SAH should always be considered. SAH is associated with a high mortality rate of 30–50%. Sudden 'thunderclap' headache, regardless of severity or prior headache history, should raise the clinical suspicion for SAH and compel a diagnostic evaluation. Altered consciousness, collapse or vomiting at onset, meningism, retinal subhyaloid haemorrhages, and a paucity of lateralizing neurologic signs are additional features that are characteristic of SAH. In patients with a suspicious history, the first step is to determine the presence of SAH, followed by an evaluation for the cause of haemorrhage. The cornerstone of SAH diagnosis is the noncontrast head CT scan. Lumbar puncture is mandatory if there is a strong suspicion of SAH despite a normal head CT. Misdiagnosis of

[1] Background information obtained from a regularly updated medical literature review source: Singer R, Ogilvy S et Rordorf G. *Etiology, clinical manifestations, and diagnosis of aneurysmal subarachnoid hemorrhage.* Uptodate — last updated January 2012. www.uptodate.com

SAH is not infrequent, and usually results from three common errors: failure to appreciate the spectrum of clinical presentation associated with SAH; failure to obtain a head CT scan or to understand its limitations in diagnosing SAH; and failure to perform a lumbar puncture and correctly interpret the results. Delays in diagnosis of SAH are also common, even in patients with a characteristic history, leading to delays in treatment in 25 percent of patients that can worsen outcome.

6. Local recommendations for management of headaches in primary care[2]

(i) Headache is one of the most common presentations in primary care. The reference above notes *Every headache presentation is unique and challenging, requiring a flexible and individualised approach to headache management…Most headaches are benign primary headaches…A few headaches are secondary to underlying pathology, which may be life threatening…Although primary care clinicians worry about missing serious secondary headaches, most people presenting with secondary headache will have alerting clinical features. These clinical features, red flags[3], are not highly specific but do alert clinicians to the need for particular care in the history, examination and investigation. An exception to this may be slow growing intracranial tumours.*

(ii) *For all initial presentations of headache, examination includes:*

- *Fundoscopy*
- *Visual acuity*
- *Blood pressure measurement*
- *Examination of the head and neck for muscle tenderness, stiffness, range of movement and crepitation.*

The presence of red flags or other features suggesting secondary headache indicate the need for more detailed examination. The question of whether a neurological examination should be performed, and in how much detail, is more

[2] BPAC. Headache in Primary Care. BPJ. Issue 7, August 2007

[3] Red Flags in headache presentation include:

Age

- Over 50 years at onset of new headache
- Under 10 years at onset

Characteristics

- First, worst or different from usual headache
- Progressive headache (over weeks)
- Persistent headache precipitated by Valsalva manoeuvre (cough, sneeze, bending or exertion)
- Thunderclap headache (explosive onset)

Additional features

- Atypical or prolonged aura (>1 hour)
- Aura occurring for the first time in woman on combined oral contraceptive
- New onset headache in a patient with a history of cancer or HIV
- Concurrent systemic illness
- Neurological signs
- Seizures
- Symptoms/signs of Giant Cell Arteritis (e.g. jaw claudication)

problematic when there are no suspicious features and the history is characteristic of a primary headache.

7. To place the circumstances of the misdiagnosis in context, I have included some extracts from a recent primary-care orientated article[4]:

(i) The incidence of subarachnoid haemorrhage is about 7 per 100 000 person years

(ii) On average a full time general practitioner with a list of 2000 patients will see one patient with the condition every seven years

(iii) Subarachnoid haemorrhage is missed in 20–50% of patients at first presentation

(iv) Among patients who present to general practice with sudden headache alone, subarachnoid haemorrhage is the cause in 1 in 10

(v) Subarachnoid haemorrhage may be missed because the cardinal symptom — sudden, severe headache — is not present in a quarter of patients, and even when it is present the characteristic sudden onset might not be made known to the doctor (as patients tend to focus on severity) or the doctor may attribute the headache to a more common cause of headache with an atypically rapid onset (such as tension headache, sinusitis, cervicogenic headache, migraine) or to primary thunderclap headache, primary exertional headache, or sex headache

(vi) The key clinical feature suggestive of subarachnoid haemorrhage is a sudden onset of severe, diffuse headache that peaks within minutes and usually lasts one to two weeks. Although the suddenness of onset is the most characteristic feature, there are no features of the headache that distinguish reliably between subarachnoid haemorrhage and non-haemorrhagic thunderclap headache. In general practice, headache is the only symptom in about a third of patients with subarachnoid haemorrhage

(vii) Other features with or without headache include vomiting (75%), depressed consciousness (67%), focal neurological dysfunction (15%), intraocular subhyaloid haemorrhages (linear or flame shaped haemorrhages in the preretinal layer) (14%), epileptic seizures (7%), delirium (1%), radicular or precordial pain (spinal subarachnoid haemorrhage), severe hypertension, and ECG changes that can mimic those of acute myocardial infarction

(viii) An epileptic seizure at the onset of the headache is a strong indicator of aneurysmal subarachnoid haemorrhage. Vomiting is not a distinctive feature because about 43% of patients with non-haemorrhagic thunderclap headache also report vomiting at onset. Preceding bouts of similar headaches are also not distinctive; they are recalled by 20% of patients with aneurysmal

[4] Hankey G et Nelson M. Easily Missed? Subarachnoid Haemorrhage. BMJ. 2009;339:b2874

> subarachnoid haemorrhage and 15% of patients with innocuous thunderclap headache. After three to 12 hours, neck stiffness may develop in conscious patients.

8. [The Clinic's] policy titled *Neurology: Sudden Onset Headache* begins with the statement *Any patient presenting with a history of* ***sudden onset headache*** [their emphasis] *must have the possibility of* ***intracranial bleed*** *included in the diagnosis and* ***be discussed with the on call Medical Registrar****…Any patient with acute or recent* ***sudden*** *onset headache, regardless of other perceived causes for that headache or co-existing medical history, needs to have their case discussed with the on call Medical Registrar with the view to hospital admission.* The clinical rationale for this advice is outlined in the body of the policy document.

9. The point I have tried to make with the background discussion is that diagnosis of SAH may be difficult, but for this very reason a high index of suspicion is required particularly given the potentially severe sequelae of a delayed or missed diagnosis. Hence the specific advice given in [the Clinic's] policy document. Failure to diagnose a subarachnoid haemorrhage is associated with re-bleeding in up to 15% of patients on the first day and 40% of first day survivors over the next four weeks. However, although early diagnosis and referral to a neuroscience unit can improve outcome, up to half of patients die within three weeks after subarachnoid haemorrhage, and a third of survivors remain dependent, often with cognitive impairment. It cannot therefore be assumed that, had [Mrs A] received appropriate specialist care [in early] 2011, she would necessarily [have] had a favourable outcome. Nevertheless, she was denied that opportunity.

10. Clinical notes and responses

(i) [The Clinic's] nurse triage notes [date] include the history *Getting ready for [sport] at 1700 and felt faint, nausea, headache, vomit x1 and diarrhoea x1. Now nausea, severe headache…O/E Alert, not distressed, anxious, T 36.7, P72, BP 120/80, triage 4…given maxalon 10mg im and voltaren 75mg IM in R glut at 1800…*

(ii) [Dr D] has recorded history including [Mrs A] drinking a glass of wine at 1700hrs then *sudden onset of severe frontal headache, she laid down —got up — vomited once…now has severe headache and photophobia. No past history of migraines and no recent head injury.* Examination findings include *pupils E+R to light, no facial asymmetry, no flexion or extension neck stiffness … no rash …* abdominal and cardiovascular examinations unremarkable … *Impression g/e/migraine headaches ppt by alcohol …* medication ordered as noted above and patient handed over to [Dr E]. In her response, [Dr D] notes her shift was ending at this point, and she transferred [Mrs A's] care to [Dr E] via a verbal report, with a plan to assess [Mrs A's] response to treatment after 20 minutes or so. [Dr D] states she did not feel [Mrs A] had a classical presentation for SAH and she was satisfied she was suffering from migraine.

(iii) In her response to HDC [Dr D] stated [Mrs A] was not a smoker. However, it transpired that [Mrs A] was a '30 per day' smoker and [Mrs C] claims she made

[Dr D] aware that [Mrs A] was smoking at the time her headache started. [Dr D] does not recall such a discussion and remembers only being told that [Mrs A] *had led a healthy and active lifestyle.*

(iv) [Dr D] concluded her consultation notes with the comment *the care of the patient was handed to [Dr E]*. This phrase was identified by [Dr E] as having been added the day following the consultation and he related this observation to [the Clinic's] medical director. In the circumstances in question, making a retrospective entry such as this to the notes without identifying it as such was unwise. Given the nature of the comment (confirming what has already been observed) the unidentified retrospective entry was a mild departure from expected standards.

(v) What I take to be [Dr E's] contemporaneous entry on [the day [Mrs A] visited the clinic] is *Imp headache, started on med, patient felt better after she had her inj, by 30–40%*. There is then an extensive retrospective entry (identified as such) made [four days later], presumably after notification that [Mrs A] had died. This includes reference to [Dr E] twice reviewing [Mrs A] in the 30–40 minutes before her discharge. At the second review, [Mrs A] stated her pain was 6–7/10 and had improved from what it was. [Dr E] felt [Mrs A] was responding appropriately to questions, did not complain of visual problems and had had no further vomiting. He states he discussed alternative causes of headache with [Mrs A's] friend (confirmed in her statement) and discharged [Mrs A] *on oral medication with verbal recommendations to come back if not getting better.* [Dr E's] response implies he was somewhat reassured by [Dr D's] examination findings and diagnosis, and states *I think that if I was to see the patient from the start I may have a different approach regarding her management.* [Dr E] states he was under the impression from [Dr D] that [Mrs A] had a migraine and he was required to assess her response to treatment. He was not asked to give a formal 'second opinion'. However, he familiarized himself with the notes and was aware of [Mrs A's] history, particularly the sudden onset of the headache and lack of previous migraine headache. He notes he has altered his personal practice to have a lower threshold for seeking advice or referring in patients presenting with sudden onset of headache, and [the Clinic] has updated its policy on sudden onset headache to require discussion with the medical registrar.

11. Comments

(i) It is important to avoid hindsight bias in a case such as this. However, I believe there were clear features in [Mrs A's] presenting history that indicated SAH required exclusion before a diagnosis of first ever migraine could be made. These features included: [Mrs A's] age (48 years) without prior history of migraine or headache; sudden onset of severe headache (thunderclap) with vomiting at onset (it is not clear whether there was a brief loss of consciousness at onset); associated photophobia. While objective features that might have aroused further suspicion, such as neck stiffness or hypertension, were absent, the historical features were sufficiently suspicious (red flags) in my opinion to warrant immediate referral, or at least discussion with the medical registrar as recommended in the relevant medical centre policy. [Dr D] obtained and documented a good history and

undertook a competent and appropriate examination. However, I believe she failed to give sufficient consideration to SAH as a possible cause of [Mrs A's] symptoms when the presentation was as at least as consistent, if not more consistent, with this diagnosis than a first migraine, and particularly given the severe sequelae of missed SAH. I feel her management of [Mrs A] departed from expected standards to a moderate degree in this regard. Mitigating factors were absence of classical signs in [Mrs A's] clinical examination, although as emphasised in the discussion in section 5 *the complaint of the sudden onset of severe headache is sufficiently characteristic that a minor SAH should always be considered.*

(ii) Smoking is the most important preventable risk factor in the aetiology of SAH (smokers having just under three times the risk of never-smokers) but I would not regard the apparent failure by [Mrs A's] providers in this case to gain an accurate smoking history as being a significant contributing factor to the misdiagnosis. The critical factors in this case were the headache 'red flags' (as previously discussed) of *thunderclap headache (explosive onset)* and *first, worst or different from usual headache*[5] occurring in a previously well 48-year old patient which, in my opinion, should have led to inclusion of possible SAH in the differential diagnosis and triggered the need for emergency specialist review or advice. This should have happened whether or not a smoking history was recorded. If an accurate smoking history was given by [Mrs A] but not recorded, or recorded inaccurately, this would be a mild departure from expected standards. If no smoking history was sought this would be at most a mild departure from expected standards as I do not believe it is standard practice to ask about smoking status in all cases of headache presentation despite the recognised link between smoking and increased risk of SAH. However, best practice would be to enquire about a patient's smoking status opportunistically if it is not already recorded in the PMS.

(iii) Notwithstanding my opinion that [Dr D's] management of [Mrs A] was a moderate departure from expected standards, the relatively high late and missed diagnosis rate of SAH, particularly in primary care, cannot be ignored and illustrates the need for heightened awareness of the condition, and the subtle ways in which it can manifest, amongst practitioners generally. The standard of clinical documentation by [Dr D] was generally good apart from the unidentified retrospective entry noted in section 10(iv).

(iv) It is somewhat more difficult to comment on [Dr E's] management of [Mrs A]. He was under the impression a diagnosis of migraine had been made, and his role was to assess response to treatment and fitness for discharge. He did review the history, but was also reviewing [Mrs A] following treatment when she was feeling moderately improved. He did have the opportunity to reassess the diagnosis, and this certainly would have been required if there had been no or minimal improvement with treatment, or any deterioration in her condition. There was certainly a lost opportunity to reconsider the diagnosis based on the clinical history alone, but taking into account the moderate improvement in [Mrs A's] symptoms after treatment (confirmed by [Mrs A's] friend who was in attendance), the absence of any new symptoms, and [Dr E's] respect for the competency of the

[5] BPAC. Headache in Primary Care. BPJ. Issue 7, August 2007

assessment and diagnostic formulation undertaken by his colleague [Dr D], I think his clinical management of [Mrs A] was most likely consistent with expected standards. I make this comment assuming he had not been asked to provide a formal review of the diagnosis (and this appears to be the case), but rather just to review response to treatment. It might have been reasonable for neurological observations to have been repeated prior to [Mrs A's] discharge, although I would not regard the absence of such observations in a patient diagnosed with migraine and evidently improving with treatment, as being a significant departure from expected practice. [Mrs C] reported in her statement that [Dr E] *gave [Mrs A] a full assessment.*

(v) The standard of [Dr E's] contemporaneous clinical documentation was suboptimal and a mild to moderate departure from expected practice. There was no indication that [Mrs A] had been reviewed twice by him prior to discharge, little indication of the content of these assessments, and no comment on discharge or follow-up instructions. I recommend the Medical Director of the facility discuss with [Dr E] measures he should undertake to improve his standard of documentation and I understand this has since occurred. The additional remedial measures undertaken by [Dr E] as per his response are appropriate.

(vi) [The Clinic] has outlined various measures undertaken since the events in question and these include: medical staff education specifically around SAH presentation; strengthening of the staff orientation process including increasing awareness of policies relating to SAH (and other 'critical' conditions); strengthening the Clinical Handover policy and requirements; regular staff clinical notes auditing and quality improvement cycle; formalising the facility's incident review process (it was identified there was lack of formal investigation, and inadequate documentation of any investigation process actually undertaken, of the events in question close to the time they occurred). These are appropriate and adequate remedial measures."