Health and Disability Commissioner
Te Toihau Hauora, Hauātanga

A Decision by the Deputy Health and Disability Commissioner

(Case 21HDC00682)

Executive summary

1. This report discusses the care provided to a young woman by two general practitioners (GPs) at an accident and medical clinic when she was prescribed medication to which she had recorded allergies. The woman was incorrectly prescribed amoxicillin, and later erythromycin, by a GP on 22 March 2021. On 18 July 2022, the woman was again prescribed amoxicillin in error by a second GP at the clinic. The report highlights the need for practitioners to take all reasonable steps to ensure that the risk of error is mitigated when prescribing medication to patients.

Findings

2. The Deputy Commissioner found that by not checking the woman's allergies adequately on two occasions, the first GP failed to provide services to the woman with reasonable care and skill and breached Right 4(1) of the Code.

3. The Deputy Commissioner found that the clinic did not breach the Code, and made adverse comment about the second GP.

Names have been removed (except the advisor) to protect privacy. Identifying letters are assigned in alphabetical order and bear no relationship to the person's actual name.

Recommendations

4. The Deputy Commissioner recommended that the first GP provide a written apology to the woman and her family for the failures identified in the report, and provide HDC with the results of the next two consecutive cycles of her clinical notes audit.

5. The Deputy Commissioner recommended that the second GP provide a written apology to the woman and her family.

6. In response to the recommendation made in the provisional opinion, the clinic updated HDC on its implementation of a new prescribing module.

Introduction

7. This report is the opinion of Deborah James, Deputy Health and Disability Commissioner, and is made in accordance with the power delegated to her by the Commissioner.

8. The report discusses the care provided to Miss A (aged in her teens at the time of these events) by general practitioners Dr B and Dr C, at an accident and medical clinic (the clinic).

9. The parties directly involved in the investigation were:

Miss A	Consumer
Mr A	Miss A's father/complainant
Dr B	GP
Dr C	GP
Accident and medical clinic	

10. On 22 March 2021, Miss A was prescribed amoxicillin[1] following a telephone consultation with Dr B. Miss A has a known allergy to amoxicillin, and when she realised that it had been prescribed, she telephoned the medical centre to obtain a different prescription. Miss A collected the new medication later that day, and took two doses of the medication (which was labelled "EMycin") and suffered severe stomach pain. Miss A was taken to hospital, where she was advised that "EMycin" is an abbreviation for erythromycin, to which she is also allergic.

11. Miss A was admitted to hospital for a period for the management of erythromycin-induced gastritis. She required strong analgesia (morphine) to manage her pain.

12. On 18 July 2022, Miss A was again prescribed amoxicillin in error by Dr C at the clinic.

[1] An antibiotic.

13. The following issues were identified for investigation:

- *Whether the accident and medical clinic provided Miss A with an appropriate standard of care in March 2021 and July 2022.*
- *Whether Dr B provided Miss A with an appropriate standard of care on 22 March 2021.*
- *Whether Dr C provided Miss A with an appropriate standard of care on 16 July 2022.*

First prescribing error — 22 March 2021

14. On 22 March 2021, Miss A had a telephone consultation[2] with Dr B.[3] Dr B documented that Miss A had a history of a sore throat and swollen glands, and that she would be "treat[ed] empirically for strep [throat]". Miss A's known allergies to the antibiotics amoxicillin and erythromycin were listed on the patient management system (PMS) as generic notes. The entries stated: "04 July 2011 amoxicillin rash and 06 June 2013 erythromycin caps GI upset."

15. The clinic told HDC that at the time of these events it was using a prescribing module that was widely used in New Zealand and was integrated into the PMS.

16. Dr B told HDC:

> "Usually when I write prescriptions in face to face consults, I ask the patient about allergies when I am writing th[e] script. I forgot to ask [Miss A] about this when I was talking with her on the phone, and didn't check the allergy section of her [PMS] record."

17. Dr B said that following the telephone consultation, she prescribed[4] amoxicillin and emailed the e-script to a pharmacy for Miss A to collect. A nurse from the medical centre later advised Dr B that Miss A was allergic to amoxicillin. Dr B told HDC that she then wrote a new prescription for erythromycin and amended the clinical record of Miss A's consultation to: "[T]reat empirically for strep [throat] (allergic to amox[icillin])." Dr B stated:

> "Unfortunately, I didn't check the separate allergies tab on our system when writing the scripts, this tab does list that [Miss A] has had reactions to both amoxicillin and erythromycin previously."

18. Miss A collected the new prescription, but did not realise that the label "EMycin" stood for "erythromycin", and she took two doses of the medication. In response to the provisional opinion, Dr B advised that she prescribed erythromycin but was not aware the medicine would be labelled "EMycin". Miss A's father, Mr A, told HDC:

> "Later that night about 2am (Tue[sday] morning) I was woken by [my daughter] who was in tears and doubled over saying that something was wrong and she was suffering

[2] In accordance with recommendations for management of patients with respiratory symptoms during the COVID-19 pandemic, Miss A was triaged and offered a telephone consultation in the carpark, with later swabbing at a COVID-19 clinic.
[3] Dr B told HDC that she was not Miss A's usual GP.
[4] Using an e-prescription.

> from sharp stabbing pains in her stomach, chest and back area. I rushed her into the [public] hospital emergency department."

19. Miss A was treated for an adverse reaction to the medication, and she and her family were advised that "EMycin" is an abbreviation for "erythromycin".

20. Dr B told HDC that she believes that the increased workload and change in consulting styles owing to COVID-19 may have influenced her error. She stated:

> "I can offer no specific reason as to why this oversight occurred. I have found the last year very trying (as I believe most doctors have), with the increase in documentation and testing needed for Covid, the introduction of more distance consults, all of which have thrown off my usual habits for consults (like asking patient[s] in front of me about allergies when writing scripts); but none of this explains or excuses my error. I should have checked the allergies tab when I wrote these scripts, and I did not."

Second prescribing error — 18 July 2022

21. On 15 July 2022, Miss A had a face-to-face consultation with Dr C[5] in relation to skin infections. Dr C told HDC that she checked Miss A's medication allergy status both verbally (with Miss A) and by consulting the relevant PMS module. Dr C said that she established that Miss A had known allergies to both erythromycin and amoxicillin, and so she prescribed trimethoprim/sulfamethoxazole,[6] to which Miss A had no recorded or recalled allergy.

22. Three days later on 18 July 2022, Miss A had a telephone consultation[7] with Dr C, who documented that Miss A's skin infection was ongoing. Dr C told HDC:

> "We discussed changing [Miss A's] antibiotic to Augmentin. During this consultation, [Miss A] did not mention any allergies. Unfortunately at the time, I did not re-check the clinical alerts on the system. I then wrote a prescription for Augmentin."

23. Augmentin is an antibiotic containing amoxicillin and clavulanic acid. When Miss A collected the prescription, she recognised the reference to amoxicillin on the medication label, and so did not take the medication. Dr C was notified, and the treatment was changed to a different antibiotic to which Miss A was not allergic.

24. Dr C told HDC:

> "I have thought long and hard about the appointment on 18 July, and why I did not recheck the allergy alerts when issuing this script. It was certainly not intentional, and

[5] Dr C was not Miss A's regular GP.
[6] A fixed-dose combination antibiotic medication used to treat a variety of bacterial infections.
[7] At the time of these events (July 2022), New Zealand was at the "Orange traffic light" setting (see: https://covid19.govt.nz/about-our-covid-19-response/history-of-the-covid-19-protection-framework-traffic-lights/#about-the-traffic-lights), which meant that COVID-19 was in the community, "with risks to vulnerable people and pressure on the health system". Miss A was also experiencing flu symptoms at this time. In line with the clinic's policy, "Managing Flu Patients in Orange Light", Miss A had a telephone consultation instead of presenting to the medical centre in person.

> while it may be unsatisfactory for [Miss A] and [Mr A] to hear, I believe this was just an unfortunate human error. Although I discussed [Miss A's] allergies in the first consultation, just three days prior, on the 15th of July, it is just unfortunate that I did not confirm allergies again during the follow-up consultation, as I did in the first appointment."

25. Dr C said that the telehealth appointments under the COVID-19 framework can present challenges to communication, which may have affected the care she provided in this case, and that prescribing errors are commonly "multifactorial" in nature.

Further information

Dr B

26. Dr B told HDC:

> "I apologise unreservedly to [Miss A] and her family for not checking her listed allergies. I deeply regret that my error has had such severe consequences for [Miss A] and her family."

27. Dr B said that her clinical notes are randomly audited independently on an annual basis. She said that to date, no issues have been identified in her audits.

Dr C

28. Dr C told HDC:

> "I also wish to repeat my sincere apologies to [Miss A] and her father, [Mr A], for any distress they have felt. I am pleased [Miss A] has still felt comfortable seeking my clinical care, and chooses to remain enrolled at our clinic, and I hope we can continue to develop a strong doctor–patient partnership in providing her with healthcare."

29. Dr C said that as part of her continuing medical education and in line with best practice, medical notes of patients under her care are audited annually. Dr C stated that no issues related to allergies have been identified in her audits.

Clinic

30. The clinic told HDC:

> "I would like to convey my apology to [Miss A] and her family for the distress caused. I am confident that we have taken necessary actions to remedy the situation and to prevent further errors of this sort in the future."

31. The clinic outlined all communication with Miss A's family following the prescribing errors, and advised that the Co-Medical Director spoke with Mr A to discuss his concerns and convey the clinic's apology to the family. The clinic also completed "Incident and Critical Event Notification forms" following both prescribing errors.

32. The clinic told HDC that no other complaints or significant events had been reported relating to prescribing errors from 1 January 2021. The clinic also told HDC that clinical notes audits are undertaken annually for all doctors within the practice.

Responses to provisional opinion

33. Mr A, Dr B, Dr C and the clinic were given the opportunity to respond to relevant sections of the provisional opinion. Where relevant, their comments have been incorporated into this report.

Dr B

34. Dr B accepted the findings, follow-up actions and recommendations in the provisional opinion.

Dr C

35. In response to the provisional opinion, Dr C told HDC:

> "Your analysis of the care I provided, and your advice and conclusions reached are appreciated and considered. It would be applicable to note that a multi-disciplinary peer group of qualified General Practitioners has deemed this at most a mild departure. I would be happy to provide the mentioned letter of apology to [Miss A] and her family, which will hopefully provide reassurance and comfort to [Miss A] and her family of the concerns they have had, and the distress felt."

Clinic

36. In response to the provisional opinion, the clinic told HDC: "[The clinic] is grateful for the extensive investigation by the Deputy Commissioner of HDC and the clinical advice given by Dr David Maplesden."

Opinion: Introduction

37. Miss A was incorrectly prescribed medications to which she had known allergies (amoxicillin and erythromycin) by two separate clinicians on three occasions at the clinic.

38. As part of my assessment of this complaint, I obtained internal clinical advice from GP Dr David Maplesden. Dr Maplesden commented:

> "The HDC has noted in a previous report on medication errors:[8] *Medication errors are somewhat inevitable owing to the fact that human error is inevitable; however, it is vital that organisations have a series of defences built into their systems to prevent such errors from reaching the patient.*

[8] See: https://www.hdc.org.nz/media/5052/medication-errors-complaints-closed-by-the-health-and-disability-commissioner-2009-2016.pdf

> The inevitability of such errors, and the knowledge that a culture of blame can inhibit reporting and analysis of errors and near misses, has been taken into account when determining my advice on this complaint … However, the prescribing of an antibiotic to which the patient has a recorded allergy or adverse reaction must be regarded as a deviation from accepted practice … A consumer has the reasonable expectation that information obtained to ensure safe prescribing will be used consistently to achieve that purpose."

39. I outline my findings in respect of Dr B, Dr C, and the clinic below.

Opinion: Dr B — breach

40. Dr Maplesden advised that the PMS used at the clinic at the time did not prevent a medication from being prescribed if there was a known patient allergy listed, and "the warnings are not prominent, frequently feature inconsequential drug interactions and are easy to ignore". He also considered the effect of the "alert fatigue" phenomenon whereby the impact of alerts on clinician behaviour diminishes as the number and frequency of alerts increases.[9]

41. Dr Maplesden advised that because the PMS warning function relies on accurate recording of medication reactions, it is best practice to question the patient directly regarding any history of drug allergies at the time of prescribing, and also to review the recorded drug warnings (and update these if necessary).

42. Dr B has accepted that on both occasions (during her prescribing of amoxicillin and later erythromycin) she did not check Miss A's allergies either directly with Miss A or by way of checking the PMS, as was her usual process. Dr B told HDC that she believes that the increased workload and the change in consulting styles due to COVID-19 may have influenced her error in this case.

43. Dr Maplesden advised:

> "The fact that [the prescribing errors] occurred on two separate occasions as part of the same consultation, when the first episode might have prompted a more thorough review of listed drug warnings, I believe would be met with moderate disapproval by my peers, with the understanding that medication errors are common in primary and secondary care,[10] but on this occasion some of the basic principles for minimising the risk of harm (asking the patient and reviewing the notes) were not undertaken."

[9] https://psnet.ahrq.gov/primer/alert-fatigue accessed 7 November 2022.
[10] Elliott R, Camacho E, Campbell F, et al. Prevalence and economic burden of medication errors in the NHS in England. Policy Research Unit in Economic Evaluation of Health and Care Interventions (EEPRU), 2018. https://drive.google.com/file/d/1tHw-R4Q9BtXNepHnyCM8DzMWjsySavp1/view Accessed 7 November 2022.

44. I agree. Practitioners should take all reasonable steps to ensure that the risk of error is mitigated. This includes checking both the PMS system for any listed allergies, and checking verbally with the patient prior to prescribing. By not undertaking a check of the PMS or verbally checking with Miss A about allergies on two occasions, Dr B did not adhere to the MCNZ "Good prescribing practice" standards (Appendix B). This is particularly concerning on the second occasion, given that Dr B was already on notice that she had incorrectly prescribed amoxicillin.

45. Right 4(1) of the Code of Health and Disability Services Consumers' Rights (the Code) states that every consumer has the right to have services provided with reasonable care and skill. In my view, by not checking Miss A's allergies adequately (as discussed above) on two occasions, Dr B failed to provide services to Miss A with reasonable care and skill. Accordingly, I find that Dr B breached Right 4(1) of the Code.

Opinion: Dr C — adverse comment

46. On 15 July 2022, Miss A had a face-to-face consultation with Dr C in relation to skin infections. Dr C told HDC that she checked Miss A's medication allergy status both verbally and by consulting the PMS. Dr C noted that Miss A had suffered reactions to amoxicillin and erythromycin previously, so Dr C prescribed another antibiotic.

47. Dr Maplesden advised that Dr C's prescribing on 15 July 2022 was consistent with accepted practice. He noted that during this consultation she checked for allergies both via verbal confirmation with Miss A and by checking the PMS.

48. However, Dr C did not follow the same procedures during her prescribing on 18 July when she conducted a telephone consultation and prescribed Miss A Augmentin, containing amoxicillin, for her unresolved skin infection. Dr Maplesden advised:

> "I would expect there to have been a warning generated within the prescribing module when the drug was prescribed but … a combination of inadequate presentation of the warning (a PMS issue) and the phenomenon of 'alert fatigue' means it can be easy to overlook such warnings."

49. Dr C accepts that she did not re-check the PMS to confirm that Miss A did not have a known allergy to the medication. She told HDC that prescribing errors are commonly multi-factorial in nature, and that telehealth appointments under the COVID-19 framework can present challenges to communication. Dr Maplesden agreed that prescribing errors are commonly multi-factorial in nature, and considered that in these circumstances, Dr C's prescribing of Augmentin was a mild to moderate departure from accepted standards.

50. I accept Dr Maplesden's advice in this regard. While I am concerned that Dr C did not take the appropriate steps to mitigate risk during her prescribing on 18 July, I also acknowledge that Dr C did check Miss A's allergies both verbally and on the PMS system during the face-

to-face consultation on 15 July. Accordingly, I consider that this was an isolated error by Dr C, and that it does not amount to a breach of the Code in these circumstances. However, I remind Dr C of the importance of checking medical alerts on both the PMS and verbally with patients before prescribing, to ensure that this remains an isolated event.

Opinion: Accident and medical clinic — no breach

51. The clinic was using the MedTech practice management system (PMS) at the time of these events. The clinic uses a prescribing system that is integrated into the PMS.

52. Dr Maplesden advised that the clinic "provided its clinicians with a widely used PMS that would be expected to be fit for purpose". He said that assuming that Dr B and Dr C were oriented to the use of the PMS adequately when they commenced practice, and noting that the reactions in this case were historical and had been recorded in the appropriate module of the PMS, "any error with respect to identifying the allergy and making an appropriate adjustment to prescribing must be regarded as the responsibility of the individual clinician rather than being the responsibility of the practice".

53. I agree. I also note that no other complaints or significant events had been reported relating to prescribing errors at the clinic. The clinic told HDC that clinical notes audits are undertaken for all doctors within the practice annually, which Dr Maplesden advised is consistent with the Royal New Zealand College of General Practitioners (RNZCGP) recommendations (Clinical record review self-audit checklist). Dr Maplesden noted that the audits included a review of the medical warnings documentation, and advised that "it does not appear there was any deficiency noted in this area in previous audits".

54. I accept this advice. In my view, these errors were the responsibility of Dr B and Dr C, and I am satisfied that they do not indicate a systems issue at the clinic. Accordingly, I find that the accident and medical clinic did not breach the Code. I trust that the remedial actions undertaken by the clinic will alleviate Mr A's concern that a similar incident may happen again.

Changes made since events

Clinic

55. The clinic told HDC that as a result of these events it took the following actions/made the following changes:

- It had informal discussions with other doctors outside the practice regarding the processes followed when prescribing, and the prescribing systems in place. The clinic advised that its processes and systems were in line with other clinics that use the same PMS.

- It conducted a doctors peer group on 5 September 2022, to discuss how to minimise errors of prescribing.
- It communicated with the PMS helpdesk to check whether the alert system could be improved to warn doctors if they are prescribing a medication to which a patient is allergic. It was found that although there were no faults in the current system, "[t]he system does not stop [doctors] from prescribing medicine with a serious reaction, apart from the warning that comes up at the bottom of the prescribing box".
- It sent an email to all doctors within the practice to gather views on a possible changeover from the "currently and widely used prescribing system … to [a newer system]". A decision was made to change to the new prescribing system. In response to the provisional opinion, the clinic confirmed that it has now migrated to the new prescribing system successfully, and that the new system allows the clinic to classify allergies more accurately based on the severity level, and automatically blocks a medicine that has been prescribed if it has been classified under a "moderate" or "severe" category.

Dr B

56. Dr B told HDC that she made the following changes as a result of these events:

- She reflected on her practice significantly, taking extra care with all prescriptions to ensure that medication reactions are checked both on the patient's records and with the patient.
- In May 2021 and June 2022 she conducted audits of her medical records related to antibiotic prescribing and recording of allergies. Both audits confirmed that 100% of patients had had their allergies documented in the allergy section of their electronic patient record, and none had allergies to the antibiotic prescribed.
- She reflected on, and takes extra care in, consultations that are outside the traditional face-to-face consultation, particularly telephone consultations or consultations that take place away from the computer.

Dr C

57. Dr C told HDC that as a result of these events she took the following steps/made the following changes:

- The pharmacy concerned was contacted to see whether protections could be put in place at the pharmacy.
- The incident was discussed at two multidisciplinary clinical peer group meetings of over 10 doctors on 5 September 2022, and at an RNZCGP peer meeting on 21 September 2022.
- Her usual practice of checking a patient's medical alerts and discussing allergy status with a patient has been reinforced, and she now documents the allergy status of a patient in the body of the clinical notes during each consultation, as a visual reminder that allergies have been discussed with the patient, and that allergy alerts have been checked.

- She customised the set-up of her home-screen to have patient drug alerts displayed at all times.

58. Dr C plans to undertake a further self-audit of allergy documentation and prescription error, for research, quality and safety, and the results of the audit will be presented to the Medical Director of the clinic for review.

Recommendations

59. I recommend that Dr B:

a) Provide a written apology to Miss A and her family for the failures identified in this report. The apology is to be provided to HDC within three weeks of the date of this report, for forwarding to Miss A and her family.

b) Provide HDC with the results of the next two consecutive cycles of her clinical notes audit, within three months of the date of this report.

60. I recommend that Dr C provide a written apology to Miss A and her family for the issues identified in this report. The apology is to be provided to HDC within three weeks of the date of this report, for forwarding to Miss A and her family.

Follow-up actions

61. A copy of this report with details identifying the parties removed, except HDC's advisor on this case, will be sent to the Medical Council of New Zealand and the Royal New Zealand College of General Practitioners, and they will be advised of Dr B's and Dr C's names.

62. A copy of this report with details identifying the parties removed, except HDC's advisor on this case, will be placed on the Health and Disability Commissioner website, www.hdc.org.nz, for educational purposes.

Appendix A: In-house clinical advice to Commissioner

The following advice was obtained from GP Dr David Maplesden on 7 November 2022:

> "1. My name is David Maplesden. I am a graduate of Auckland University Medical School and I am a practising general practitioner. My qualifications are: MB ChB 1983, Dip Obs 1984, Certif Hyperbaric Med 1995, FRNZCGP 2003. Thank you for the request that I provide clinical advice in relation to the complaint from [Mr A] about the care provided to his daughter [Miss A] by [Dr B] and [Dr C] of [the clinic]. In preparing the advice on this case to the best of my knowledge I have no personal or professional conflict of interest. I agree to follow the Commissioner's Guidelines for Independent Advisors.
>
> 2. I have reviewed the following information:
>
> - Complaint from [Mr A]
> - Response from [the clinic]
> - Response from [Dr B]
> - Response from [Dr C]
> - [Clinic] clinical notes
> - [Public hospital] clinical notes
>
> 3. [Mr A] complains about the prescribing for his daughter [Miss A] by [Drs B and C] at [the clinic]. [Miss A] has an allergy to amoxicillin (rash) and erythromycin (previous gastritis). On 22 March 2021 [Miss A] had a telephone consultation with [Dr B] in relation to a sore throat symptom. A prescription for amoxicillin was emailed to the pharmacy but later the same day [Dr B] contacted [Mr A] to state the amoxicillin was prescribed in error and an alternative prescription for E-mycin would be sent to the pharmacy. [Mr A] did not recognise the E-mycin as being erythromycin and after two doses of the drug [Miss A] developed severe abdominal pain and was seen at [the public hospital] ED where she was diagnosed with erythromycin-induced gastritis. She required strong analgesia (morphine) and was discharged on omeprazole and an alternative antibiotic, cefaclor. On 18 July 2022 another doctor at [the clinic] ([Dr C]) prescribed [Miss A] Augmentin which contains amoxicillin. [Mr A] is concerned at these events.
>
> 4. The clinic uses the MedTech … practice management system (PMS). … If medication alerts/allergies are correctly entered into the appropriate PMS module, a warning will be visible (related to recorded allergy or potential interaction with other regular medications) if there is an attempt to prescribe that medication. However, the medication can still be prescribed and my recollection (I previously used MedTech … until my PMS changed to Indici two years ago) is that the warnings are not prominent, frequently feature inconsequential drug interactions and are easy to ignore. Coupled with this is the phenomenon known as 'alert fatigue' whereby the impact of alerts on clinician behaviour diminishes as the number and frequency of alerts increases[1]. An optional new prescribing module was introduced by Medtech in 2021 (New Zealand

[1] https://psnet.ahrq.gov/primer/alert-fatigue Accessed 7 November 2022.

Formulary) … and this enables use of more prominent 'pop-up' alerts for allergies and prevents prescribing of drugs which are coded as having a 'severe' reaction for the patient. I am unable to comment on the proportion of MedTech users who have changed to the new prescribing module, or whether the change has resulted in fewer prescribing errors. However, I note [the clinic] has considered the impact of the current prescribing module on the errors in question and have made the decision to integrate the new prescribing module in November 2022. This seems to be a reasonable remedial action amongst the others noted in the provider responses.

5. The Medical Council of New Zealand statement relevant to this complaint is 'Good prescribing practice'[2]. This includes the following comments:

- *Good prescribing practice requires that a doctor's customary prescribing conforms within reason to patterns established by the doctor's peers in similar practice. Inappropriate prescribing (which may include indiscriminate, excessive or reckless prescribing) is unacceptable, both clinically and ethically. It is also harmful to patients, the medical profession and society.*
- *Take an adequate history of the patient, including: family history of the disease or condition, any previous adverse reactions to medicines; previous and current medical conditions; and concurrent or recent use of medicines (including non-prescription, complementary and alternative medicines).*
- *Prescribe in accordance with accepted practice and any relevant best practice guidelines. Prescribing outside of accepted norms should only occur in special circumstances with the patient's informed consent. It might be useful to discuss the proposed treatment with a senior colleague before completing the prescription.*

6. In my opinion, it is accepted practice when prescribing antibiotics to a patient to take steps to ensure the patient has not had an adverse reaction to that antibiotic. Given the PMS warning function relies on accurate recording of medication reactions, I believe it is best practice to question the patient directly regarding any history of drug allergies at the time of prescribing. The recorded drug warnings should also be reviewed and may be adjusted depending on the patient history (including prescribing history) provided at the time. I acknowledge it is widely accepted that only a small proportion of patients with a recorded or reported history of penicillin allergy will have a true IgE mediated allergy that might require absolute avoidance of the drug[3], but there is no evidence in this case the nature and extent of [Miss A's] previous amoxicillin reaction was discussed until following the 2022 prescribing error (see below). [The clinic] has provided its clinicians with a widely used PMS that would be expected to be fit for purpose. Assuming the clinicians involved in the complaint were adequately orientated to use of the PMS when commencing practice, and noting the reactions in this case

[2] https://www.mcnz.org.nz/assets/standards/ceae513c85/Statement-on-good-prescribing-practice.pdf Accessed 4 November 2020.
[3] https://www.cdc.gov/antibiotic-use/community/pdfs/penicillin-factsheet.pdf Accessed 4 November 2022.

were historical and had apparently been recorded in the appropriate module of the PMS, any error with respect to identifying the allergy and making an appropriate adjustment to prescribing must be regarded as the responsibility of the individual clinician rather than being the responsibility of the practice. The [clinic] and clinic responses note clinical notes audits have been undertaken in the past and will continue consistent with RNZCGP recommendations[4]. Such audits include review of medical warnings documentation and it does not appear there was any deficiency noted in this area in previous audits.

7. [Miss A] had existing medical warnings coded as: *04 Jul 2011 amoxicillin rash* and *06 Jun 2013 erythromycin caps GI upset.* I note the manner in which the warnings are recorded (generic note only) might have affected the way in which a warning was exhibited at the time of prescribing. The warnings were updated on 4 April 2021 to include the drug group under the 'Medical Warning' heading *(Penicillins* and *Erythromycin ethyl succinate*) with notes of *rash* and *severe abdominal pain with …* respectively. On 22 March 2021 [Miss A] attended [the clinic] for review of a persistent sore throat. In accordance with recommendations for management of patients with respiratory symptoms during the Covid pandemic, [Miss A] was triaged and offered a telephone consultation with later swabbing at a dedicated Covid swabbing clinic. [Dr B's] notes adequately record [Miss A's] history of sore throat and swollen glands with the decision to *treat empirically for strep* which is consistent with accepted practice noting [Miss A's] age and ethnicity. [Dr B] acknowledges failing to check [Miss A's] drug warning history either directly with [Miss A] or via the PMS and she prescribed amoxicillin (recommended first line treatment for strep throat if no allergy) with the script being emailed to a pharmacy. Later that day a nurse presented the amoxicillin script to [Dr B] and discussed [Miss A's] recorded allergy to that drug. [Dr B] then prescribed erythromycin (recommended second line treatment for strep throat in patients unable to take penicillins) again without checking the PMS to determine [Miss A's] allergies. [Miss A] subsequently developed severe abdominal pain and was assessed in [the public hospital] where she received treatment for erythromycin induced gastritis. Past history noted in the [public hospital] discharge summary includes: *[Miss A] also has an adverse reaction to erythromycin and has previously experienced severe upper abdominal pain a few years ago post-exposure which resolved with antacids ?presumed gastritis.*

Comment: [Dr B] acknowledges she did not undertake her usual practice of asking patients about antibiotic allergies and checking the PMS medical warning module when prescribing antibiotics. She notes the impact of Covid on current workloads and consulting styles (increased frequency of remote consulting) which she feels may have influenced this 'one off' error. I believe [Dr B's] management of [Miss A] on this occasion, while consistent with accepted practice with respect to treatment of suspected strep throat in non-allergic patients, was deficient with respect to the expectation that adequate steps are taken to ensure the patient has no allergy to the

[4] https://www.rnzcgp.org.nz/gpdocs/New-website/quality/Record_Review_MAR-2020.pdf Accessed 4 November 2022.

drug(s) being prescribed before they are prescribed. The fact this occurred on two separate occasions as part of the same consultation, when the first episode might have prompted a more thorough review of listed drug warnings, I believe would be met with moderate disapproval by my peers with the understanding that medication errors are common in primary and secondary care [5] but on this occasion some of the basic principles for minimising the risk of harm (asking the patient and reviewing the notes) were not undertaken. However, I believe the remedial measures undertaken by [Dr B] since this event, as outlined in her response and the response from the practice, are appropriate and I have no further recommendations in this regard other than to suggest the Commissioner is provided with the results of the next two cycles of her clinic notes audit.

8. On 15 July 2022 [Miss A] had a face to face consultation with [Dr C] in relation to skin infections. As part of the consultation [Dr C] states she checked [Miss A's] medication allergy status both verbally and by consulting the relevant PMS module. She established [Miss A] had reactions to amoxicillin and erythromycin and prescribed her trimethoprim/sulfamethoxazole to which [Miss A] had no recorded or recalled allergy. Three days later on 18 July 2022 [Miss A] had a telephone consultation with [Dr C] in which it was noted her skin infection was not resolving. [Dr C] notes: *We discussed changing her antibiotic to Augmentin* [a combination of amoxicillin and clavulanic acid]*. During this consultation, [Miss A] did not mention any allergies. Unfortunately at the time, I did not re-check the clinical alerts on the system. I then wrote a prescription for Augmentin.* The prescription was faxed to a pharmacy and the drug was dispensed. However [Miss A] apparently recognised the reference to amoxicillin on the package labelling and did not take the drug. [Dr C] was notified and the treatment changed to cefaclor. At a follow-up appointment on 22 August 2022 [Dr C] discussed the penicillin allergy history in more detail noting (in hindsight): *[Miss A] has historically taken both Augmentin and Amoxicillin without an adverse reaction, but in 2011 a rash was noted when [Miss A] took Amoxicillin. [Miss A's] records at that time indicated that it was unclear if the rash was a reaction to Amoxicillin, or as a result of possible underlying infectious mononucleosis.* A referral to a clinical immunologist was offered but declined by [Miss A] at this time.

Comment: On 15 July 2022 [Dr C] took appropriate steps to ensure safe prescribing for [Miss A] and the medication prescribed was consistent with accepted practice for treatment of skin infections in patients with a penicillin allergy and intolerance of erythromycin. Recommendations for use of Augmentin for treatment of skin infections relate to human or animal bites or diabetic skin infections[6]. However, I would regard [Dr C's] prescribing of the drug as consistent with common practice had [Miss A] not had a recorded allergy to the penicillin group of antibiotics (based on the revised allergy entry dated 4 April 2021). I have assumed the prescribing of Augmentin on 18 July 2022

[5] Elliott R, Camacho E, Campbell F, et al. Prevalence and economic burden of medication errors in the NHS in England. Policy Research Unit in Economic Evaluation of Health and Care Interventions (EEPRU), 2018. https://drive.google.com/file/d/1tHw-R4Q9BtXNepHnyCM8DzMWjsySavp1/view Accessed 7 November 2022

[6] https://bpac.org.nz/antibiotics/guide.aspx#boils Accessed 7 November 2022.

was a simple oversight rather than a failure to recognise this was a penicillin based drug. Unfortunately [Dr C] did not follow the same procedures she had undertaken three days previously with respect to checking for allergies although it is unclear if [Miss A] would have admitted an allergy to Augmentin had she been asked unless she was aware this contained amoxicillin. I would expect there to have been a warning generated within the prescribing module when the drug was prescribed but, as noted previously, a combination of inadequate presentation of the warning (a PMS issue) and the phenomenon of 'alert fatigue' means it can be easy to overlook such warnings. [Dr C] quite rightly notes that prescribing errors are commonly multi-factorial in nature and on this occasion additional safety-netting possibilities at the point of dispensing did not occur, in part because [Miss A] had no 'usual' pharmacy that might have had her allergy recorded on their own dispensing system. Under the circumstances described I believe the prescribing of Augmentin was a mild to moderate departure from accepted practice even though no harm occurred. However, I appreciate [Dr C's] discussion regarding the factors contributing to such errors and I believe the remedial actions she has since undertaken are appropriate.

9. The HDC has noted in a previous report on medication errors: *Medication errors are somewhat inevitable owing to the fact that human error is inevitable; however, it is vital that organisations have a series of defences built into their systems to prevent such errors from reaching the patient*[7]*.* The inevitability of such errors, and the knowledge that a culture of blame can inhibit reporting and analysis of errors and near misses, has been taken into account when determining my advice on this complaint. I am reluctant to 'blame' providers for what is apparently a lapse in usual practice and is known to be a not uncommon occurrence and I believe the actions of the medical centre and two doctors concerned illustrate they have taken a conscientious and constructive approach to determining how recurrence of such errors can be reduced in the future. These constructive actions are far more likely to result in positive change and risk reduction than any punitive action. However, the prescribing of an antibiotic to which the patient has a recorded allergy or adverse reaction must be regarded as a deviation from accepted practice even if I and most of my colleagues have likely had similar episodes including near misses during our professional careers. A consumer has the reasonable expectation that information obtained to ensure safe prescribing will be used consistently to achieve that purpose."

[7] https://www.hdc.org.nz/media/5052/medication-errors-complaints-closed-by-the-health-and-disability-commissioner-2009-2016.pdf Accessed 7 November 2022.

Appendix B: Relevant standards

Medical Council of New Zealand "Good prescribing practice"

The MCNZ "Good prescribing practice" statement provides:

"
- Good prescribing practice requires that a doctor's customary prescribing conforms within reason to patterns established by the doctor's peers in similar practice. Inappropriate prescribing (which may include indiscriminate, excessive or reckless prescribing) is unacceptable, both clinically and ethically. It is also harmful to patients, the medical profession and society.

- Take an adequate history of the patient, including: family history of the disease or condition, any previous adverse reactions to medicines; previous and current medical conditions; and concurrent or recent use of medicines (including non-prescription, complementary and alternative medicines).

- Prescribe in accordance with accepted practice and any relevant best practice guidelines. Prescribing outside of accepted norms should only occur in special circumstances with the patient's informed consent. It might be useful to discuss the proposed treatment with a senior colleague before completing the prescription."