

Administration of penicillin to man with documented allergy

Decision 21HDC01029

On 10 February 2021 HDC received a complaint from Mr and Mrs A, via the Nationwide Health and Disability Advocacy Service, about the care provided to Mr A at Health New Zealand|Te Whatu Ora (Health NZ) Capital, Coast and Hutt Valley. The complaint raised concerns that Mr A, aged 68 years at the time of the events, was administered a penicillin-based antibiotic despite having a documented penicillin allergy.¹

Complaint background

- 2. On 23 December 2020 Mr A presented to the Emergency Department at Public Hospital 1 with chest pain and required transfer to Public Hospital 2 on 28 December 2020 for a percutaneous coronary intervention² (PCI). The discharge summary from Public Hospital 1 clearly recorded 'Anaphylaxis to penicillin' and included 'penicillin' under the section for 'Allergies'.
- During the PCI surgery to insert the stent³ on 29 December 2020, it was identified that damage to Mr A's coronary artery had caused a complete blockage of blood flow through the artery (occlusion). Subsequent surgery (an emergency artery bypass graft) was completed later that day. The anaesthetic chart records 'no known clinically significant drug allergies or other contraindications'. Following surgery, Mr A was admitted to the Intensive Care Unit (ICU) to recover. The ICU Admission Report noted under 'allergy' that Mr A had a 'documented anaphylaxis to penicillin'.
- Overnight on 29 December 2020, Mr A's condition declined with ST elevation⁴ and chest pain, and an emergency angiogram ⁵ indicated a 'kink' ⁶ in the graft. The Cardiology Procedure Record for the angiogram noted Mr A's penicillin allergy. During transfer to surgery to remove the kink, Mr A experienced nausea and vomiting, which caused aspiration.⁷ On the morning of 30 December Mr A had surgery to review and reposition the graft in order to remove the kink. The anaesthetic chart for surgery again recorded 'no known clinically significant drug allergies or other contraindications'.

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¹ In November 2020 Mr A had an anaphylactic reaction after being prescribed a penicillin-based antibiotic by his general practitioner. Mr A required treatment with adrenaline in Public Hospital 1.

² A procedure in which a stent (a short wire mesh tube) is inserted into a coronary artery to treat narrowing of the artery.

³ A small mesh tube that is inserted into a blocked vessel to keep it open and restore blood flow.

⁴ An abnormal heart rhythm.

 $^{^{\}rm 5}$ X-ray imaging of blood flow in the body.

⁶ An area of narrowing/reduced flow.

⁷ Inhalation of the vomit into the airway.

- 5. Following surgery, Mr A returned to ICU and initially he was stable. However, a drop in his blood pressure and reduced respiratory function in the early afternoon led staff to consider that an acute respiratory distress syndrome (ARDS)⁸ event may have occurred as a result of the aspiration. To prevent infection, 1.2g of Augmentin (a penicillin-based antibiotic) was prescribed by ICU senior medical officer Dr B. RN C administered the Augmentin intravenously at 2.25pm on 30 December.
- The nursing notes from another RN at 2.35pm, 10 minutes after the administration of Augmentin, record a significant drop in Mr A's blood pressure with his systolic blood pressure (SBP)⁹ recorded as 45–50mmHg. Health NZ told HDC that initially this was thought to be related to the flow in the coronary artery bypass graft completed as part of the first surgery. Mr A lost cardiac output¹⁰ and was resuscitated in accordance with the Cardiac Advanced Life Support guidelines.¹¹ However, due to his worsening condition, a decision was made to re-open his chest (re-sternotomy) urgently to try to identify the issue. Mr A's right ventricle (the part of the heart that had received the bypass graft) was noted not to be responding, and the cardiothoracic surgeon administered adrenaline directly into Mr A's heart. Mr A was then taken back to the operating theatre that evening for a third emergency surgery to explore the right ventricle. During the surgery, it was noted that Mr A had received a penicillin-based antibiotic.
- 7. The documentation of Mr A's penicillin allergy was inconsistent throughout his clinical records. The NZ National Medication Chart is the nationwide document used for recording the medicines prescribed and administered to patients, as well as documenting any allergies and adverse reactions. The front page of this chart documented Mr A's penicillin anaphylaxis with an additional note stating 'listed as anaphylaxis needs to be confirmed' written and then crossed out. Subsequent pages of the chart have the box for no allergies checked, then crossed out, with the check box for 'yes' ticked then penicillin written in. Changes to the chart have been signed but not dated, so it is unclear when the changes were made.

Provider responses

- 8. Health NZ apologised for the events and acknowledged that the prescribing and administering of an antibiotic to which Mr A had a known allergy should never have occurred and 'reflects an unacceptable series of errors relating to the handover of information and checking and double-checking of medications'. Health NZ said that Mr A's time in Public Hospital 2 was unusually complex due to the number of complications he suffered and, at the time of the routine nursing handover at 7.00am on 30 December, the usual process for information transfer was interrupted.
- 9. Dr B also emphasised the complexity of the care being provided to Mr A and said that there was a lack of awareness of Mr A's penicillin allergy. Dr B said that despite this context, this was an event that should never have occurred, and he apologised for the prescribing error.

¹¹ The administration of fluid, straight leg raise, and the administration of adrenaline.



⁸ A serious lung condition that causes fluid build-up and reduces oxygen in the blood.

⁹ The pressure in the arteries when the heart muscle contracts. A reading below 90 is considered low.

¹⁰ The volume of blood the heart pumps per minute.

10. RN C told HDC that the usual nurse-to-nurse handover on the morning of 30 December was interrupted because Mr A was taken for an urgent angiogram, and therefore there was no handover of the drug chart or allergies, as these went with Mr A for the angiogram. RN C said that when Mr A arrived back at ICU following his aspiration, the handover covered only what had happened in theatre that morning because he was already known to the ICU staff. RN C said that when she administered the Augmentin prescribed by Dr B, she followed the ICU protocol for administration, which includes double-checking of all intravenous medications.

Response to provisional opinion

Mr and Mrs A

11. Mr and Mrs A were given an opportunity to comment on the provisional opinion, and they advised that they had no further comment.

Health NZ

Health NZ was given an opportunity to comment on the provisional opinion, and it advised that it accepted the findings and apologised for the distress caused to Mr A and his family. Further comments have been incorporated into the report where relevant.

Dr F

- Dr B was given an opportunity to comment on the provisional opinion. Dr B said he thought that the report was balanced and fair and he offered his sincere apologies to Mr A and his family for his prescribing error.
- Dr B advised that since the events, the Public Hospital 2 ICU Drug Manual has been amended to remove 'augmentin' as the brand name and replace it with 'Amoxicillin + Clavulanic Acid' to reduce the likelihood of recurrence by a future prescriber, although he noted that this was not the reason for the prescribing error in this instance.

RN C

15. RN C was given an opportunity to comment on the provisional opinion and her response has been incorporated into the report where relevant.

Independent advice

Independent advice was obtained from Dr David Knight, an Intensive Care Medicine specialist (Appendix A). Dr Knight emphasised that it was an emergency situation with Mr A being critically unwell with several different procedures needing to be done, and several different medications being prescribed and administered. Dr Knight advised that Dr B's prescribing of Augmentin to someone who was allergic to penicillin-based antibiotics was a departure from accepted standards, but there were several mitigating factors such as the inconsistent documentation around Mr A's allergy status, the disruption to the nursing handover process, and the fact that Mr A's allergy status was unable to be checked with him. Dr Knight also advised that the documentation of Mr A's allergy status was below the accepted standard due to the number of conflicting and unclear records, noting that different pages of the NZ National Medication Chart had recorded Mr A's allergy status



differently, and the anaesthetic charts incorrectly recorded that Mr A had no known allergies.

17. Independent advice was also obtained from RN Jo-Ann Farrell (Appendix B). RN Farrell advised that RN C's administration of Augmentin to someone who was allergic to penicillin-based antibiotics was a mild departure with mitigating factors, in particular the limited time for nursing handover, unclear allergy documentation, the prescribing error, and Mr A's unstable condition. RN Farrell also commented on the inconsistent documentation of Mr A's allergy status.

Opinion Health NZ — breach

As noted above, the documentation of Mr A's penicillin allergy was inconsistent throughout his medical records and in the NZ National Medication Chart. Both independent advisors commented on these inconsistencies and advised that this was below the accepted standard.

Health NZ had the overall responsibility for ensuring that Mr A received an appropriate level of care while at Public Hospital 2, and that robust systems were in place to support clinicians in ensuring continuity of care. The inconsistent documentation of Mr A's penicillin allergy occurred across multiple documents that were completed by different staff members. On the advice of Dr Knight and RN Farrell, these inconsistencies likely contributed to the error in the prescribing and administering of Augmentin. The documentation errors therefore represent a systemic failure to provide services to Mr A with reasonable skill and care. Accordingly, I find Health NZ in breach of Right 4(1) of the Code of Health and Disability Services Consumers' Rights.¹²

Opinion Dr B — adverse comment

As the doctor who prescribed Augmentin to Mr A, Dr B had a responsibility to ascertain Mr A's allergy status at the time of prescribing, as stated in Health NZ's Allergy and Adverse Drug Reaction documentation and reporting policy. I acknowledge the conflicting documentation of Mr A's allergy status and his critical condition as mitigating factors in this instance. However, I remain critical that Dr B prescribed Mr A a medication to which he had a documented allergy, and I encourage Dr B to reflect on these events to improve his future practice.

Opinion RN C — other comment

Noting the advice from RN Farrell, I encourage RN C to reflect on these events. However, again I acknowledge that several mitigating factors may have contributed to the error, as outlined above.

Changes made

22. Health NZ told HDC that the following changes were made as a result of these events:

¹² Right 4(1) states: 'Every consumer has the right to have services provided with reasonable care and skill.'



Names (except Health NZ Capital, Coast and Hutt Valley and the advisors on this case) have been removed to protect privacy. Identifying letters are assigned in alphabetical order and bear no relationship to the person's actual name.

- The need to check allergies and follow administration protocols for medication has been reinforced with ICU staff, and this is included in regular educational updates.
- There is now a dedicated pharmacist in the ICU who checks and cross-checks allergies to ensure that documentation and prescriptions are consistent and accurate.
- The previous patient management system (PMS), Medical App Portal, has been migrated to a new PMS, Single Clinical Portal. This means that there is now one PMS for Capital, Coast and Hutt Valley and the Wairarapa district to allow for a more consistent approach to care.
- Electronic drug alerts are available in the Single Clinical Portal, and all staff have access to edit and update these.
- The District Wide Allergy and Adverse Drug Reaction Policy has been reviewed and updated.
- Dr B advised that since these events, he no longer relies on a single document for checking a patient's allergies prior to prescribing.

Recommendations and follow-up actions

- 24. I recommend that Health NZ Capital, Coast and Hutt Valley:
 - Provide a written apology to Mr A and his family for the deficiencies in the care provided to him. The apology is to be sent to HDC, for forwarding to Mr A, within three weeks of the date of this report.
 - Provide HDC with an update on the development of a new format for drug alerts and the implementation of the National Medical Warning System throughout its Single Clinical Portal, within three months of the date of this report.
- A copy of this report with details identifying the parties removed, except Health NZ Capital, Coast and Hutt Valley and the advisors on this case, will be placed on the Health and Disability Commissioner website, www.hdc.org.nz, for educational purposes.

Nāku iti noa, nā

Dr Vanessa Caldwell

Deputy Health and Disability Commissioner



Appendix A: Independent clinical advice to Commissioner

The following independent advice was obtained from Dr David Knight:

Thank you for asking me to provide expert advice to the Health and Disability Commissioner regarding care provided by Te Whatu Ora Capital Coast and Hutt Valley to [Mr A] between 28th December 2020 and 7th January 2021 (inclusive).

This report is based on the information provided to me by your office and is listed below. I will be happy to consider any further relevant information, queries or commentary, and if this leads me to reach different views I will be happy to say so.

I have read a copy of the HDC's Guidelines for Independent Advisors and agree to comply with it.

My name is Dr David John William Knight; my qualifications are MBChB, MRCP, FRCA, DICM, and FCICM. I have been a full-time Intensive Care Medicine Specialist in the Department of Intensive Care, Christchurch Hospital since November 2008. I am not aware of any conflict of interest relevant to this case.

I have been provided with the following documents by your office:

- 1. Letter of complaint dated 7 May 2021
- 2. Te Whatu Ora Capital Coast and Hutt Valley response dated 24 June 2021
- 3. Te Whatu Ora Capital Coast and Hutt Valley response dated 17 October 2022
- 4. Clinical records from Te Whatu Ora Capital Coast and Hutt Valley covering the period 28 December 2020 to 7 January 2021
- 5. Te Whatu Ora Capital Coast and Hutt Valley relevant policies and procedures.
 - Anaphylaxis emergency management by nurses and midwives
 - Allergy and Adverse Drug Reaction documentation and reporting
 - Management of cardiac arrest in the ICU after recent cardiac surgery
 - Prescribing for Inpatients at CCDHB
 - Clinical handover Guiding Principles
 - ISBAR Clinical Communication Guideline Safe medicine administration
- 6. Te Whatu Ora Capital Coast ICU 24-hour flow chart covering the period 00:00 on 29 December 2020 to 23:59 on 31 December 2020

Preamble:

The "Background" provided to me on the *Expert Advice Request* from the *Health and Disability Commissioner* dated 28th November 2023 is an excellent summary of the multiple complex events cumulating in administration of Augmentin to [Mr A] at approximately 14:30 on 30th December 2020. I will use this reference and language to ensure consistency throughout this report.

 The reasonableness of the care provided to [Mr A] by Te Whatu Ora Capital Coast and Hutt Valley — In particular, whether there are any systemic issues that could have contributed to the prescribing and administering of Augmentin.



[Mr A] underwent a relatively common procedure (coronary angiography) and suffered a relatively uncommon but well recognised complication (injury to the coronary artery leading to blocked coronary artery). This required urgent cardiac surgery to bypass the blocked artery. These two procedures occurred in quick succession, followed a relatively predictable course and resulted in an initially good recovery including successful liberation from mechanical ventilation (removal of the breathing tube and discontinuation of artificial ventilation). Unfortunately, one of the coronary bypass grafts failed to function normally when it became kinked. This second complication triggered a series of events which included two urgent resternotomies (opening of the chest to gain access to the heart), life threatening aspiration and severe organ failure requiring maximal ICU support. These additional events all occurred in a period of less than 12 hours and involved at least 5 separate handovers of care, between 4 different specialities, in 3 geographical areas. This degree of complexity and patient acuity will put even the best systems under pressure, increasing the risk of adverse events. A patient receiving a penicillin-based antibiotic despite a documented penicillin allergy is clearly suboptimal. Despite this clear error, the care up to and after this point is of a high standard. I cannot identify any particular overarching systemic issues that might have contributed to prescription and administration of Augmentin.

2. The reasonableness of the care provided by [Dr B] — in particular, the appropriateness of prescribing Augmentin on 30 December 2020

[Mr A] was given Augmentin when he was already gravely unwell. At this time, he was receiving high quality, complex care, coordinated by an experienced intensive care [physician] [Dr B], who appeared to have been directly present at the bedspace throughout this period. This represents a very high standard of care.

[Mr A] had a witnessed vomit and aspiration event whilst being moved to theatre on the morning of 30th December 2020. He required a bronchoscopy (a thin flexible tube that can visualise and remove foreign material from the lung) in theatre which demonstrated brown/yellow mucoid fluid in left and right lower lobes of the lung. Despite this treatment, [Mr A] required high concentrations of oxygen (up to 100%) and required increasing amounts of medication to support a low blood pressure. Therefore, he had objective evidence of aspiration, signs consistent with severe aspiration pneumonitis and was deteriorating despite appropriate ICU care. Treatment for aspiration often includes antibiotics and Augmentin is a common choice.¹

- a. What is the standard of care/accepted practice?
 - i. Antibiotic treatment for severe aspiration pneumonitis is a reasonable standard of care.
 - ii. In the context of penicillin allergy, a non-penicillin-based antibiotic should have been prescribed.
 - iii. Augmentin prescription for a penicillin allergic patient is below a standard of accepted practice



- b. If there has been a departure from the standard of care or accepted practice, how significant a departure (mild, moderate, or severe) do you consider this to be?
 - i. This is a moderate to severe departure from the expected standard of care, but there are a number of mitigating factors which may have contributed to this error.
 - ii. The expected standard of practice is that a practitioner should ensure adequate knowledge of the patient's condition including any previous adverse reactions to medications before prescribing. This is explicitly stated in the New Zealand Medical Council Statement on Good Prescribing Practice (March 2020).²
 - iii. The expected standard at Capital and Coast DHB (as named in 2020) is that prescribers have a responsibility for ascertaining a patient's allergy status at the time of prescribing medication. This is explicitly stated in the *Allergy and Adverse Drug Reaction documentation and reporting policy ID 1.8457* (Issue Date 21 August 2020).³
 - iv. Mitigating circumstances
 - Awareness of allergy status direct patient and whānau history are
 often impossible to ascertain in time-critical situations when a patient
 is unconscious in ICU. Other key sources of data include patient notes,
 attending health professionals, ICU 24-hour chart and the drug chart.
 - The CCDHB Allergy and Adverse Drug Reaction documentation and reporting policy (ID 1.8457) describes several potential independent sources for prescribers to initially identify patient allergies; including GP referral letter, old notes, Medical Applications Portal (MAP), Emergency Departments Information system (EDIS) Medical. Once assessment is complete, the allergy is expected to be identified on the drug chart, in the medical notes and MAP. Importantly, once written on the drug chart, there is no explicit requirement to repeatedly recheck if this documented allergy is correct.
 - Medical notes Documentation of allergy within the medical notes is sometimes inconsistent (see below) and is difficult to locate. It is reasonable NOT to seek drug allergy status from this source if it has already been recorded in an appropriate place such as a contemporaneous drug chart.
 - Attending health professionals Recorded anaphylaxis to penicillin was clearly articulated in the formal ICU admission report by ... on 29th December.⁴ It is unclear if [Dr B] was involved in [Mr A's] treatment the following day. [Mr A] returned to ICU after having his second heart operation (unkinking of the artery) at approximately 11:30 on 30th December. The anaesthetic chart explicitly describes "no known clinically significant drug allergies or other contraindications".⁵ It is therefore possible that allergies were³ not highlighted during handover between the anaesthetist and ICU team. I cannot see any record of [Dr B] or [RN C] treating [Mr A] prior to this point.



- ICU 24 Hour flow chart the CAUTION section of the chart on 29/12/20 is blank. The CAUTION section on 30/12/20 documents "penicillin". It is unclear if this was completed before Augmentin was prescribed, however it should be noted that this chart was active before, during and after the allergy was recognised. The "penicillin" entry is not timed or signed.
- **Drug chart** This remains the most reliable source of contemporaneous drug allergy status. The NZ National Medication Chart was utilised, and penicillin anaphylaxis is documented. There is an additional "listed as anaphylaxis needs to be confirmed" which has been scored through on the front of the chart. The entry is not dated, but the signature is that of the admitting [physician]. It therefore seems likely that the allergy was displayed appropriately on the drug chart at the time of Augmentin prescription and delivery.
- The design of the chart means that the allergy warning is only visible at the front of the chart. All the prescribing occurs on page 2, 3, 4 etc of the drug chart where this allergy box is **not** visible. A second, separate allergy box is displayed within the body of the chart. This second allergy box confusingly has both the "no" AND "yes" allergy boxes ticked, penicillin is noted and is supported by a different undated and unidentifiable (comparing to prescriber example signature on the front of chart) signature. It is unclear to me whether the penicillin allergy was documented from admission or if the "no" allergy box was initially ticked in error.
- The standard of care described in CCDHB Allergy and Adverse Drug Reaction documentation and reporting policy (ID 1.8457) suggests that
 - Prescribers are responsible for ascertaining and documenting a patient's allergy/ADR (adverse drug reaction) in at least one of the boxes provided on the medicine chart at the time of prescribing
 - Medications cannot be given until this is done
 - Consultants have full responsibility for ensuring that their team prescribe safely
- The drug chart immediately before and after ICU admission (commenced 28/12/2020 and 05/01/2021 respectively) have clearly stated, signed and dated "penicillin anaphylaxis" documented on the front, but both have blank "embedded" allergy boxes.^{8,9} This is at the "document in at least one place" standard.
- Paradoxically the greater amount of documentation provided on the ICU drug chart (allergy status described in more than one of the boxes provided), whilst at standard, might increase the risk of error.
- A blank embedded allergy box should encourage the prescriber to read the front allergy box, whilst a completed embedded allergy box with a reassuring documented "no" allergy might increase the risk of missing a true allergy.



- It is therefore possible that the two allergy boxes displayed contradictory information, with the (embedded) drug allergy box erroneously reassuring the prescriber that no allergy existed.
- It should be noted that the embedded drug allergy box refers the prescriber to the front of the chart for further allergy details. In addition, [Dr B] placed a sample signature on the front of the drug chart. The penicillin allergy was clearly displayed on the front of the drug chart.
- [Dr B] as the [physician] caring for [Mr A] at the time of the error must also bear "full responsibility for ensuring that their team prescribe safely".
- There are therefore several mitigating circumstances that may have resulted in erroneous prescription of Augmentin.
 - If penicillin allergy was displayed on the ICU 24-hour flow chart AND the embedded (within drug chart) allergy box, then this would be a moderate to severe deviation from accepted practice.
 - If no allergy was highlighted at the anaesthetic-ICU handover and both the ICU 24-hour flow chart and embedded drug chart anaphylaxis box displayed no record of allergy (the latter may have explicitly suggested positively that no allergy existed) then the error is a mild to moderate deviation from accepted practice.

v. Medical knowledge

- Augmentin is a one of the most commonly prescribed antibiotics in New Zealand. It is a combination of two antibiotics, amoxicillin and clavulanic acid. Amoxicillin belongs to the aminopenicillin class of the penicillin family and is therefore contraindicated in patients with a penicillin allergy.
- Augmentin is a non-generic proprietary name and good prescription practice in New Zealand encourages generic prescription. Amoxicillin-Clavulanate is now preferred over Augmentin. NZ National Medication Chart user guide explicitly highlights Augmentin prescription as confusing due to inadequate identification of its penicillin component.^{12,13}
- The 2022 [Public Hospital 2] ICU Registrar orientation manual lists Augmentin in the section ICU antibiotic guidelines, whilst Amoxicillin-Clavulanate is suggested in the section entitled empiric treatment for hospital acquired pneumonia.¹⁴
- It is inconceivable that [Dr B] was unaware that Augmentin contained a penicillin-based antibiotic.
- The term Augmentin seemed to be locally endorsed by the ICU department as recently as 2022 (two years after this critical incident) and so non-generic prescribing of Augmentin was an acceptable standard in 2020
- vi. Risk of prescribing Augmentin to penicillin allergic patients.



- In a recent study from the NHS, prescribing Augmentin to penicillin allergic patients was the second most prevalent drug error, with workload and time pressure cited as the most frequently identifiable error producing factor.¹⁰
- Health and Disability Commissioner report (published 11th September 2023) reviewed a fatal case of anaphylaxis following erroneous Augmentin prescription in a penicillin allergic patient.¹¹
- This exact prescription error is very well described in the medical literature
- c. How would it be viewed by your peers?
 - i. Medication errors in ICU are relatively common due to polypharmacy (multiple drugs), patient acuity (patient requires multiple concomitant non-drug interventions), an altered response to drugs and the patient may be too unwell to inform the prescriber about any potential adverse drug effects. The incidence of prescription errors in ICU is estimated to be about 10% and about 1/3 of these result in patient harm.¹⁵ The most commonly misprescribed drug class in ICU are antibiotics.
 - ii. Most critical care physicians would recognise how this error could have occurred. [Mr A] was critically unwell at the time of the drug error. In the two hours leading up to this event, he had 8 separate medications prescribed and delivered.⁶ This is an environment when even the most robust policies and procedures are put under strain.
 - iii. I suspect peer view would be greatly influenced by the clarity of the penicillin allergy on the drug chart, as outlined above in section "b" departure from standards. The information provided to me does not allow me to form a firm conclusion
- d. Recommendations for improvement that may help to prevent a similar occurrence in future.
 - i. Consistent allergy display
 - A single allergy box that is visible during prescribing would prevent contradictory allergy statements in the same document.
 - Several designs for the NZ National Medication Chart exist. The
 design described in the HQSC endorsed National Medication chart
 user guide (third edition) dated January 2021, endorses a single
 brightly coloured Allergies and Anaphylaxis box at the top of page
 2.¹⁶ This single box is visible when prescribing throughout the
 document.
 - ii. Use of generic prescribing
 - I do not believe that lack of knowledge regarding the generic components of Augmentin was a contributing factor in this case. However, generic prescription is generally recommended.
 - iii. E-prescribing
 - The use of electronic prescribing would probably have prevented this particular error. If Augmentin prescription is attempted in a



- patient⁷ with a known penicillin allergy, then a clear alert is displayed to block potentially dangerous prescription.
- Electronic prescribing is expensive to install, and many platforms function poorly in an ICU environment, but several ICUs across the country have now adopted e-prescribing. Some studies have suggested up to an 80% reduction in prescription errors when eprescribing replaces paper-based systems.¹⁷

3. Whether a doctor in this situation would reasonably expect the administering nurse to complete any checks before administering a prescribed medication.

- a. What is the standard of care/accepted practice?
 - i. The expected standard at Capital and Coast DHB (as named in 2020) is that nurses have a responsibility to ask a patient (where possible) if they have any drug allergies, regardless of documentation on the medicines chart. This is explicitly stated in the Allergy and Adverse Drug Reaction documentation and reporting policy ID 1.8457 (Issue Date 21 August 2020).
 - **ii.** There is no advice on what a suitable or standard alternative might be in patients who are unable to communicate (common in ICU).
 - iii. Safe Medicine Administration policy ID 1.964 (dated 15th March 2021) identifies two levels of checking medication; an independent two-person (double) check and a FULL independent two person (double) check. There appear to be 3 key differences between these two processes. The full check requires a second independent drug check before administration (after the initial preparation), the full check is more protocolised and finally a second HCP (health care professional) is required to sign the drug chart following administration.
 - iv. Within the independent two-person (double check) process, a six stage "check" administration and delivery process is described. Stage 2 includes "check the chart and ask the patient if any allergies or adverse drug reactions exists". In policy 1.8457 Allergy and Adverse Drug Reaction documentation and reporting, the nurse is expected to be aware of allergy status before prescribing and to both document and alert the responsible medical team if undocumented allergies are identified.
 - v. The nurse would be expected to independently check the prescription, calculation and preparation of medication before checking it with another independent health care professional. Part of this process should include independently checking the drug chart for allergies.
 - vi. Therefore, the doctor would reasonably expect the administering nurse to complete an independent check of drug allergy and report any concerns before administration of a prescribed medication
- **b.** If there has been a departure from the standard of care or accepted practice, how significant a departure (mild, moderate, or severe) do you consider this to be?
 - i. This is a moderate departure from the expected standard of care, but there are a number of mitigating factors which may have contributed to this error.



- ii. If the patient is unable to communicate, no additional corroborating allergy history is mandated beyond the inferred drug chart.³
- **iii.** As in the information described for [Dr B], it appears that the front of the drug chart had an allergy to penicillin clearly displayed, but a second allergy box within the body of the drug chart had at best, confusing information and at worse a false declaration of "no known drug allergy".
- iv. As with [Dr B], I can draw no firm conclusions but would make the following observations.
 - If Augmentin was prescribed and a reassuring "no allergy" was documented in the embedded allergy box, then a mild departure from standard is observed.
 - If allergy was clearly displayed, then the deviation is moderate to severe.
- **c.** How would it be viewed by your peers?
 - i. I do not feel qualified to comment on nursing peers.
 - ii. I note that [RN C] was the sole nurse signatory on the drug chart in the 3 hours [Mr A] spent in ICU before the error. During this time [Mr A] received multiple complex medications (at least 8), drug chart documentation is at the standard described by Te Whatu Ora Capital Coast and Hutt Valley policy and is consistent with all the additional drug charts provided to me.
 - iii. I note from [RN C's] retrospective note that "On handover the anaesthetist noted that [Mr A] had been charted Augmentin 1.2.g when he has a documented penicillin allergy. I had administered this approx. 5–10mins before significant deterioration and CALS (cardiac advanced life support) and had not had the chance to document." I infer from this that the Augmentin prescription was completed before the error, but the signature confirming administration occurred long after the event.
 - **iv.** This information suggests a nurse under tremendous pressure and I think most professional peers would acknowledge that this was a high-risk situation for medication errors.
 - v. If allergy was clearly identified on the heavily utilised 24-hour chart AND the embedded drug allergy box, then I think most of my medical peers would see this as an understandable moderate deviation from a standard, mitigated by the overwhelming workload.
 - **vi.** If the allergy was missing, then I think most peers would identify this as a mild deviation.
 - **d.** Recommendations for improvement that may help to prevent a similar occurrence in future.
 - i. As per comments under section "2"
 - ii. Full independent double check for intravenous antibiotics Antibiotics do not currently require a full independent double check in Te Whatu Ora Capital Coast and Hutt Valley. Antibiotics represent the class of drug associated with most adverse drug reactions in hospitals.^{10,19} Whilst an allergy check is part of the current independent drug check, the FULL



independent drug check is more protocolised and mandates a second signature on the drug chart. These two clearly identified health care professionals in addition to the initial prescriber are likely to increase the opportunities to recognise potential allergies or prescriber errors.

4. The adequacy and consistency of the documentation recording [Mr A's] penicillin allergy.

- **a.** What is the standard of care/accepted practice?
 - **i.** Documenting and avoiding adverse drug reactions is a key component of good hospital practice.
 - **ii.** Patients who are unable to advocate for themselves because of anaesthesia or critical illness are particularly vulnerable to error. In addition, patients requiring multiple handovers between hospitals, specialities and shift-based personnel are at an elevated risk. Detailed handover documents and checklists are often used to mitigate against these issues.
 - iii. [Mr A] was cared for by multiple teams during his stay. Many teams and services had their own independent documents and checklists which generally described either allergy or anaphylaxis to penicillin. The critical deviation from this standard appears on the anaesthetic charts for the initial emergency CABG (29/12/20) and subsequent second operation (30/12/20) which both explicitly describe "No known clinically significant drug allergies or other contraindications". 5,20 This second anaesthetic chart recorded events up to approximately 11:30am on 30/12/20. A third anaesthetic chart after the anaphylaxis event correctly records the allergy and the anaesthetist is credited with recognising this error in [RN C's] retrospective note. 18,21
 - iv. National drug chart [Mr A] was conscious but critically unwell before the two procedures where the anaesthetic team erroneously documented "no known allergies". [Mr A] may not have been able to disclose his allergy status, but the National Medication Drug chart in use at the time (pre-ICU drug chart) clearly has this allergy stated.⁸
- **b.** If there has been a departure from the standard of care or accepted practice, how significant a departure (mild, moderate, or severe) do you consider this to be?
 - i. This is a moderate to severe departure from accepted practice.
 - ii. I note the documented "time out completed" at 14:39 and 09:44 during the first and second of these operations respectively. ^{5,20} A "time out" is World Health Organization internationally described process where the whole operating team stops and systematically verbalises the operation plan. ^{22,23,24} A key component of this "time out" is a description of allergy. This aspect is often led by the anaesthetist.
 - **iii.** It is possible that the allergy was well identified during both anaesthetics and the absence on accompanying documents merely represents a clerical error. [Mr A] was not exposed to any penicillin-based drugs during either anaesthetic.



- iv. [Mr A] received the antibiotic cephazolin during both these anaesthetics. This antibiotic is not penicillin based and is standard for this type of surgery. A small number (2–5%) of penicillin allergic patients may still have an allergic response to a cephalosporin antibiotic like cephazolin. However, current consensus suggests that the risk of anaphylaxis is very low.²⁵
- v. I can therefore make no judgement on whether the omission of allergy documentation represents a simple clerical error or a major omission that might have contributed to a missed opportunity for highlighting an allergy risk to the ICU team
- **c.** How would it be viewed by your peers?
 - i. Clear and accurate documentation of allergies in a key part of an anaesthetist's role. Failure to correctly document a known adverse drug reaction is below an acceptable standard.
 - ii. The mitigating circumstances include the fact that the patient would have probably been too unwell to describe these allergies. In addition, the patient required active and complex resuscitation when initially reviewed by the attending anaesthetist. This may have reduced standard opportunities to collect an accurate allergy history.
 - iii. The drug chart in use at the time of the initial anaesthetic clearly has penicillin anaphylaxis signed and dated (28/12) on the front of the chart.⁸ The cardiac bypass perfusionists also document allergy to penicillin on their assessment at this same initial operation.²⁴
- **d.** Recommendations for improvement that may help to prevent a similar occurrence in future.
 - i. Consistency of documentation There are at least 10 separate documents describing allergy status during [Mr A's] stay. These documents variably describe anaphylaxis, allergy and even no allergy. A single reliable universal document and consistent language describing allergic response would be ideal.
 - **ii.** The National Drug Chart allergy box should ideally be this "universal source of truth." If this is reliably completed to include a detailed description of the adverse drug reaction and supported by a clear dated signatory, then some errors might be reduced.
 - **iii.** E-prescribing as outlined above, an electronic prescription can have a "force function". This means a comment on allergy needs to be completed before the program will allow medication to be prescribed. This might then become the central document in allergy history.
 - **iv.** The patient is often the key source of allergy history. When the patient is unable to give this history, practitioners might consider documenting the source of the allergy history. This might also encourage review of a universal drug chart rather than reliance on previous anaesthetic charts etc.



5. The adequacy of the relevant policies and procedures in place at the time at Te Whatu Ora Capital Coast and Hutt Valley.

In December 2020 there appeared to be appropriate hospital-wide policies and procedures that should have prevented this event. The provided document titled *Allergy and Adverse Drug Reaction documentation and reporting* (Issued 21st August 2020) clearly outlines the responsibility of the prescriber and dispenser as well as documentation standard. This policy is clear and unambiguous.

6. Any other matters that you consider warrant comment.

I have no additional comments.

Summary

- Prescription and delivery of Augmentin to a patient with a known penicillin allergy is below a standard of care.
- Prescription and delivery of Augmentin to a patient with a known penicillin allergy accounts for up to 5% prescription errors and can be fatal.^{10,11}
- As a minimum, clear and unambiguous description of allergy status should be documented and checked on the drug chart before prescription or delivery of medication. This is particularly important in patients who are unable to give an allergy history.
- Whilst the allergy status was appropriately documented on the front of the drug chart at the time of Augmentin prescription and delivery, a second "embedded" allergy box was displaying either confusing or even contradictory information.
- [Dr B's] prescription of Augmentin was inappropriate, but had a number of mitigating circumstances including confusing documentation (as outlined above) and high workload.
- A doctor in this situation would reasonably expect the administering nurse to complete an independent check of the allergy status before administering a prescribed medication. The mitigating circumstances for [Dr B] are equally applicable here.
- The documentation of [Mr A's] penicillin allergy was generally adequate, but inconsistent throughout his stay in Te Whatu Ora Capital Coast and Hutt Valley. However, two anaesthetic assessments erroneously recorded him as having no allergy and this may have contributed to inadequate communication between medical teams.

Please do not hesitate to contact me if you have any further questions.

Yours faithfully

Dr David Knight

Bear Kingl



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- **2.** https://www.mcnz.org.nz/assets/standards/ceae513c85/Statement-on-good-prescribing-practice.pdf
- 3. Te Whatu Ora Policies and Procedures (HDC supplied document) page 7
- **4.** Clinical Records (2) HDC supplied document page 13
- 5. Clinical Records (1) HDC supplied document page 25
- **6.** Clinical Records (2) HDC supplied document page 82
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- **22.** Clinical Records (1) HDC supplied document page 28
- **23.** Clinical Records (1) HDC supplied document page 26
- **24.** Clinical Records (1) HDC supplied document page 33
- **25.** Surgical safety checklist. https://www.hqsc.govt.nz/our-work/improved-service-delivery/safe-surgery-nz/projects/surgical-teamwork-and-communication/interventions/surgical-safety-checklist/
- **26.** Perioperative anaphylaxis: What you need to know. ANZCA bulletin Summer 2021"



Appendix B: Independent clinical advice to Commissioner

The following independent advice was obtained from RN Jo-Ann Farrell:

'Complaint:	[Mr A] [RN C]
Our ref:	21HDC01029
Independent advisor:	RN Jo-Ann Farrell

Name: RN Jo-Ann Farrell
Date of Advice: 17 July 2024

Additional Comments: Date: 28th November 2024

I have been asked to provide clinical advice to HDC on case number 21HDC01029. I have read and agree to follow HDC's Guidelines for Independent Advisors.

I am not aware of any personal or professional conflicts of interest with any of the parties involved in this complaint.

I am aware that my report should use simple and clear language and explain complex or technical medical terms.

Qualifications, Training and Experience Relevant to the Area of Expertise Involved:

Registered Nurse with 30 plus years' experience in ICU at Middlemore Hospital. A Level 3 ICU specialising in burns and cervical spine injuries, as well as caring for complex surgical and medical adult and paediatric patients.

Documents provided by HDC:

- 1.0) Letter of complaint dated 7 May 2021
- 2.0) Health New Zealand Te Whatu Ora Capital Coast and Hutt Valley's response dated 17 October 2022
- 3.0) Health New Zealand Te Whatu Ora Capital Coast and Hutt Valley's Clinical records from Health New Zealand Te Whatu Ora Capital Coast and Hutt Valley covering the period 28 December 2020 to 7 January 2021
- 4.0) ICU Nursing observations from Health New Zealand Te Whatu Ora Capital Coast and Hutt Valley
- 5.0) Health New Zealand Te Whatu Ora Capital Coast and Hutt Valley relevant policies and procedures. Including:
 - (a) Anaphylaxis emergency management by nurses and midwives
 - (b) Allergy and Adverse Drug Reaction documentation and reporting
 - (c) ISBAR Clinical Communication Guideline
 - (d) Administration management of IV medicines and fluids
 - (e) Safe medicine administration



Referral Instructions from HDC — [RN C]:

- 1.0) The reasonableness of the care provided to [Mr A] by [RN C]. In particular, the reasonableness of administering Augmentin when [Mr A] had a documented allergy to penicillin.
- 2.0) The adequacy and consistency of the documentation recording [Mr A's] penicillin allergy.
- 3.0) The adequacy of the Health New Zealand Te Whatu Ora Capital Coast and Hutt Valley policies in place at the time.
- 4.0) Any other matters in this case that you consider warrant comment.

Factual Summary of Clinical Care Provided Complaint:

Brief summary of clinical events:

Complaint — The administration of Augmentin — a penicillin-based antibiotic to a patient [Mr A] with a documented Penicillin reaction.

Provider Response — Family meeting and summary of events that led to cardiac arrest. Admitting penicillin anaphylaxis cover have been the cause for this 31/12/20.

[RN C] who administered the Augmentin [no longer works at] Capital Coast. Reinforcement to all ICU staff to check for patient allergies and follow administration protocols for medications and regular educational updates.

Clinical Notes — [Mr A] was admitted to ICU following an acute CABG on 29/12/20. Extubated later in the evening. The following morning 30/12/20 at nursing handover he developed ECG changes with chest pain and went to the Cath Lab. A coronary angiogram showed a kink in the graft.

He vomited during this time and most likely aspirated as he was lying flat. He then was reintubated and went back to Theatre. On return to the ICU [Mr A] was unstable, critically unwell. He was given steroids and Augmentin at 1405. Ten to 15 minutes later his BP dropped, and his heart stopped. CPR was started and adrenaline as per guidelines was administered via intravenous lines. He did not respond. So, his chest was opened — re-sternotomy in the ICU. There was direct visualization of the heart and the right ventricle was not pumping. It was injected directly with adrenaline and started to pump again. [Mr A] was taken back to theatre for re-exploration of his coronary artery graft. It was noted during Theatre that [Mr A] had been given Augmentin prior to his collapse. This may have caused anaphylaxis and been a reason for the drop in BP and loss of output — needing CPR. The graft was patent, and [Mr A] went back to ICU. The Sternotomy (chest wound) was closed on 31/12/20. [Mr A] was extubated on the 01/01/2021. Transferred to the ward on 02/02/21 and then back to [Public Hospital 1] for ongoing care on 06/01/21.



QUESTION 1: The reasonableness of the care provided to [Mr A] by [RN C]. In particular, the reasonableness of administering Augmentin when [Mr A] had a documented allergy to Penicillin.

List any sources of information reviewed other than the documents provided by HDC: Nil other sources used.

Adviser's Opinion:

[Mr A] was critically unwell, on high amounts of oxygen and ventilatory support. He required extra sedation and paralysis to ensure he was deeply asleep and not interfering with ventilation. He was also haemodynamically unstable requiring 3 inotropes — for blood pressure support. His heart rhythm was also unstable. [RN C] was constantly juggling ventilator and inotrope settings administering electrolytes and completing patient care. After another period of prolonged hypotension, hydrocortisone and Augmentin were charted. Rationale being infection/sepsis being the cause for the ongoing hypotension. There was unclear allergy status on both the drug and ICU patient charts. This was a pressure situation and a team error. Prescriber and administrator under pressure.

What was the standard of care/accepted practice at the time of events? Please refer to the relevant standards/material.

High standard of nursing care as per Nursing Council of New Zealand competencies for Registered Nurses:

Nurses Scope of Practice.

Critical Nurses Standards One Nurse to a Ventilated Patient.

Anaphylaxis — emergency management by nurses and midwives. This was carried out as per protocol.

Administration management of IV medicines and fluids.

Safe Medication Administration — including Allergy and Adverse Drug Reaction documentation and reporting.

Due to mitigating circumstances — administrating IV medications — in this case Augmentin and checking of allergy status did not meet accepted practice.

Was there a departure from the standard of care or accepted practice?

- No departure;
- Mild departure;
- Moderate departure; or
- Severe departure

Mild departure due to mitigating factors — patient was unstable, there was a prescribing error.



In pressure situations it is not always possible to get a truly independent double check or source documentation regarding allergies — meaning a mistake can easily happen.

There was excellent documentation in the nursing notes by [RN C]. Demonstrating good nursing care and understanding of the complex, unstable cardiac condition of [Mr A]. Acknowledging administration of Augmentin could have caused anaphylaxis and be a reason for the cardiac arrest.

If the above were not present — a stable patient, detailed patient handover going through all clinical documents and sharing of information and the drug and allergy status had been independently checked by 2 RNs — then this would have been a Moderate departure of care.

How would the care provided be viewed by your peers? Please reference the views of any peers who were consulted.

This would be within expected standards of care. Many factors in play — such as limited time for nursing handover, unclear allergy documentation, busyness of an unstable patient, prescribing error and administration error. Quick and appropriate medical and nursing care instigated. Potential for anaphylaxis identified and treated.

Acknowledgement from [the] Nurse Manager ... that [RN C] was managing a complex clinical situation and was under pressure. The documentation and checking of allergies is a shared responsibility and does not sit with one person alone.

Please outline any factors that may limit your assessment of the events.

No information or reply from [RN C] as she [no longer works at] Capital Coast.

Reply from [RN C]. Reinforces interrupted handover at the beginning of a busy shift, no information shared about allergies or looking at the drug chart. No formal handover of [Mr A] on return from Theatre as he was already a patient in ICU. Again, another opportunity missed to look at Allergy status.

Recommendations for improvement that may help to prevent a similar occurrence in future.

Review of how allergies are captured and kept up to date and how can these easily be accessed in emergency situations. Somewhere easily accessible for all staff — such as front of ICU bedside documentation chart. Reinforce independent double checking of IV medications.

Recommend a formal handover of a patient returning from Theatre even if known or already a patient in ICU. To ensure all staff have the same information — especially if they have not looked after the patient before. This decreases the chance of missed information.



QUESTION 2: The adequacy and consistency of the documentation recording [Mr A's] penicillin allergy.

List any sources of information reviewed other than the documents provided by HDC: Nil other sources used.

Advisers Opinion:

Inconsistent documentation.

On the front of the top left of the Drug Cart in the Allergies Section — No is ticked but scribbled over for Allergies and No is ticked for adverse reactions (Not scribbled over).

And then Yes is ticked for Allergies and Penicillin is written.

I cannot make an assessment which was their first or when it was amended. There are no dates or times by any of these alterations.

There is no documentation in the clinical notes about these alterations/changes in allergy status or allergy reaction.

Did [RN C] check the allergy section and give Augmentin without knowing [Mr A] was allergic to Penicillin?

Or in her haste to give the antibiotic did she not check the allergy section of the drug chart?

What was the standard of care/accepted practice at the time of events? Please refer to relevant standards/material.

Considering all the variables and inconsistencies in allergy documentation and adverse reactions and mitigating circumstances, I find the standard of nursing care and practice acceptable at the time. When an error occurs, it is not down to one person. The systems put in place to recognise and hopefully avoid an error did not work in this situation — due to unclear and poor documentation of allergy and adverse reaction status.

Was there a departure from the standard of care or accepted practice?

- No departure;
- Mild departure;
- Moderate departure;
- Or Severe departure.

Mild departure — On the front of the top left of the Drug Chart in the Allergies Section — No is ticked but scribbled over for Allergies and No is ticked for adverse reactions (Not scribbled over). If there had been clear documentation of allergy status — allergic to Penicillin; and then adverse reactions — Anaphylaxis. The proceeding to give Augmentin would have been a Moderate departure of care.



If there had been a proper handover, a stable patient with time to independently check IV medication as per:

- a) Safe Medicine Administration including Allergy and Adverse Drug Reaction documentation and reporting
- b) Administration management of IV Medicines and Fluids

[RN C] Reply. Correct process of taking drug Chart to the Pyxis to remove steroid and antibiotic.

Double checking — standard practice and carried out with RN at the bed space. [RN C] could not recall whether penicillin allergy was recorded on the internal page. When the drug chart was open, the internal allergy box at the top of the page was visible, but not the front page — which most likely did have the allergy status recorded. I agree with [RN C] that it is unlikely the allergy status was recorded on the internal page of the drug chart, as the prescribing Doctor, [RN C] and the RN double checking the antibiotic did not notice a Penicillin allergy in the allergy box.

[RN C] felt pressure to give the steroid and antibiotic as the patient was so unstable.

Soon after the antibiotic was given [Mr A] dropped his blood pressure significantly and lost cardiac output. He was rushed to Theatre for another look at his graft site.

On return to the ICU, [RN C] recalls the Anesthetist commented about the charting of Augmentin, noting that he had an allergy documented on the front of his drug chart. If this was the case, there is indeed some doubt that the allergy status was documented on the Internal page of the drug chart.

The administering Augmentin with no mitigating factors would have been a Severe departure from acceptable nursing care and standards.

How would the care provided be viewed by your peers? Please refer to the views of any peers who were consulted.

With multiple paper notes transcribing of information can be lost. Discussed with ... Intensivists [at another hospital].

Please outline any factors that may limit your assessment of the events.

Unable to speak to staff involved directly.

[RN C] reply.

Reply from [RN C] reinforces my assessment of the clinical situation and mitigating factors which led to the unfortunate administration of Augmentin.

Recommendations for improvement that may help to prevent a similar occurrence in future.

Electronic notes.



Allergy status on Drug chart bigger font.

Any alterations to allergy status signed and dated.

One page for drugs/medications to be written and signed for — and Allergy status clearly marked at the top of the Drug Chart

QUESTION 3: The adequacy of the Health New Zealand Te Whatu Ora Capital Coast and Hutt Valley policies in place at the time.

List any other sources of information reviewed other than the documented provided by HDC:

Used documents/Policies provided by HDC.

Advisor's Opinion:

Unable to assess if IV antibiotic was independently double checked.

Unclear documentation in allergy section of the front section of the ICU drug chart — ? RN saw No for allergies and No for adverse reactions.

Only one signature on drug chart to indicate IV Augmentin was given to the patient.

Reply from [RN C] indicated antibiotic had been double checked using the 5 Rights of medication safety as per routine practice.

[RN C] indicated medications are signed once administered. As soon as the antibiotic was given [Mr A] significantly deteriorated and there may have been no time for the other RN to sign as priority shifted to life saving interventions.

It appears the internal page of the Drug Chart did not have the Allergy status recorded.

Acknowledgement from CCHV Nurse Manager (NM) ... that [RN C] was managing a complex clinical situation. The allergy was recorded but documentation was unclear. Documentation and checking of allergies are a shared responsibility and not down to one individual.

Unable to implement electronic notes or electronic prescribing currently. However, the introduction of a Tracer audit and having a single Clinical Portal may help with improved accessibility of information between areas.

CCHV policies were up to date and adequate at the time of this event. Despite best practice drug errors do still occur. Implementing quality initiatives highlighting the 5 rights of medication administration helps to reinforce safe practice to all staff.

CCHV will continue to use the national medication chart developed by Te Tāhū Hauroa. And will implement a change in practice to have alterations in allergy status signed and dated.



What was the standard of care/accepted practice at the time of events? Please refer to relevant standards/material.

Current up to date policies:

- a) Anaphylaxis emergency management by nurses and midwives
- b) Safe Medicine Administration including Allergy and Adverse Drug Reaction documentation and reporting
- c) Administration management of IV Medicines and Fluids.

Acknowledgement from CCHV that electronic notes are not able to be implemented at this time.

Was there a departure from the standard of care or accepted practice?

- No departure;
- Mild departure; or
- Severe departure.

No departure.

All relevant, current policies.

How would the care provided be viewed by your peers? Please reference the views of any peers who were consulted.

Expected standard of care. Discussed with ... Intensivists [at another hospital].

Please outline any factors that may limit your assessment of the events. Nil.

Recommendations for improvement that may help to prevent a similar occurrence in future.

Current and up to date policies on Independent double Checking of Medications, Scope of practice and documentation of Medication Administration.

QUESTION 4: Any other matters in this case that you consider warrant comment.

List any sources of information reviewed other than the documents provided by HDC:

Advisor's Opinion:

It is unfair to apportion all the blame on [RN C]. Multiple factors were in play. She did not prescribe the Antibiotics. There was unclear allergy status documented on the front of the ICU drug chart.

What was the standard of care/practice at the time of events? Please refer to relevant standards/material.

Excellent standard of nursing and medical care.



If this event had happened anywhere other than in a cardio-thoracic ICU the patient would most likely not have survived.

Nursing and clinical note documentation used.

Was there a departure from the standard of care or accepted practice?

- No departure;
- Mild departure;
- Moderate departure; or
- Severe departure.

No departure.

How would the care provided be viewed by your peers? Please reference the views of any peers who were consulted.

Unfortunately, in medicine and nursing there is human error and mistakes are unfortunately made. Intensivists [at the other hospital] ... consulted on this.

Please outline any factors that may limit your assessment of the events.

No documentation from [RN C].

[RN C] has replied, and this situation has had a profound effect on her as a Registered Nurse. I do believe all the usual checks — double checking and 5 rights of Medication administered were carried out to the best of her ability. Administering medications and checking allergy status is not the responsibility of one person. It is a shared responsibility between all nursing and medical staff.

Recommendations for improvement that may help to prevent a similar occurrence in future.

Improve Allergy documentation and reaction status on ICU Drug Chart.

Name: RN Jo-Ann Farrell Date of Advice: 17 July 2024

ACNM
APC No. 113635
Critical Care Complex

Additional Comments: Name: RN Jo-Ann Farrell Date: 28th November 2024'

