Release Notes RTI 1767/21
Patient Safety and Quality Improvement Service

Right to Information application 1767/21

Medication Incidents (MSHHS, MNHHS & GCHHS)

Date range: 01/01/2020 - 31/12/2020

Purpose of report

Provide applicant of RTI 1767/21 details of clinical incidents classified as medication incidents reported in RiskMan meeting criteria as detailed in the Request for documents Terms of application:

1. Statistical data as follows:
   - number of all drug related SACs entered into Riskman
   - number of times a patient was administered incorrect type of drug/medication
   - number of times a patient was administered wrong volume of drug/medication
   - number of times a patient was given a drug/medication not subscribed/intended for them.

2. Details of the 5 most serious SACs (starting at SAC1) in the above period with details such as:
   - Age and sex of patient.
   - Date and location of the incident (HHS, Facility, Ward/Location)
   - Details of what drug/medication the patient was given, the volume of drug (and correct dosage), and what drug/medication the patient should have been given.
   - Outcome/result/effect of the wrong drug/incorrect volume
   - Reason/ailment for the patient attending hospital.

Important notes in considering the data

- The data presented is information directly reported by frontline clinicians
- The data presented includes deaths which were not reasonably expected as an outcome of healthcare **prior to an analysis being undertaken**
- The data includes deaths that may be a result of an underlying condition
- The data includes deaths that were not preventable i.e. there was no further or alternate action health professionals could have taken that would have prevented the death

Data source

- Data was retrieved from the RiskMan Clinical Incident database for all Hospital and Health Services.
- Riskman is designed to enable reporting, investigation and management of clinical incidents and consumer feedback reported/received by Hospital and Health Service (HHS) staff.
- All data presented for the current RTI 1767/21 was extracted from RiskMan and has been self-reported by Hospital and Health Service staff.
- The data for RTI 1767/21 is current in RiskMan as of 12 March 2021.

Search Criteria and Methodology

- RiskMan data was extracted based on search criteria and checked by Systems team, Patient Safety and Quality Improvement Service (PSQIS).

Date of incident	01/01/2020 to 31/12/2020
Harm	All
Hospital and Health Service	Gold Coast or Metro North or Metro South
Subject affected	Patient/Client
Patient affected type	All
Classification	Medication

Search Results

Statistical Data

- 12428 records were located using the search criteria.
- Reduced to 12099 after exclusion of duplicate and unconfirmed records.
- The last three statistical data requests are a subset of these results.

Note: It is possible for a medication event to have more than one issue, so an incident may occur in more than one of the request statistical groups. Incidents may also involve items/events other than medications in the incident.

Most Serious SACs

- Selection of records has been based the SAC score and the confirmed level of harm.
- Incident content has not been reviewed for relevance, only that it contained medication as an incident classification.

Note: Incidents may also involve items/events other than medications in the incident, where medication may not be considered the primary incident type.

Interpretation notes

The vast majority of care delivered in hospitals and by other health services in Queensland is very safe and effective. However, despite excellent skills and best intentions of our staff, occasionally things do not go as expected. When this happens, it is distressing for patients, families and staff, particularly when the consequence is severe. Publicity around these events can also cause the community to lose trust in their healthcare system.

Queensland Health has worked hard to develop a patient safety culture that actively encourages staff to report clinical incidents and see these as opportunities to learn about and fix problems. The analysis of these incidents helps us better understand the factors that contribute to patient incidents, and implement changes aimed at improving safety. While some people may interpret reports of clinical incidents

as a sign of poor safety, we view incident reporting as an indicator of a good patient safety culture

that ultimately leads to better patient care i.e. staff are willing to report incidents to actively pursue implementation of actions in order to minimise the potential for the reoccurrence of a similar incident in the future.

Interpreting numbers of clinical incidents, comparing the number of clinical incidents between HHSs, or using the number of clinical incidents as indicators of performance is not advised due to:

- a degree of clinical subjectivity in deciding whether an adverse outcome is a clinical incident i.e. what is reasonably expected is different from one clinician to the next, as well as what is expected by the patient/family. For example, a death may not have been reasonably expected and therefore met the definition of a SAC1 incident, but is later determined to have been the result of an underlying condition. Consistent with best practice across the world, it is important to us to have a reporting system that captures a broad scope of adverse patient outcomes that *could* be potentially preventable so that we can continue to learn and improve.
- Classification of an adverse patient outcome as a clinical incident does not describe 'negligence' or 'fault' on behalf of our staff or systems.
- Not all clinical incidents are preventable.
- Higher incident reporting rates are generally accepted as an indicator of a positive and transparent safety culture, rather than a marker of less safety care.

Severity Assessment Code (SAC) Definitions

SAC 1 - Death or permanent harm which is not reasonably expected as an outcome of healthcare

SAC 2 – Temporary harm which is not reasonably expected as an outcome of healthcare

SAC 3 – Minimal or no harm which is not reasonably expected as an outcome of healthcare

SAC 4 – Near miss which is not reasonably expected as an outcome of healthcare

Gold Coast Hospital and Health Service - **5 most serious medication events entered into Riskman for the period 01/01/2020-31/12/2020**

Incident ID	Incident Date	Facility	Age	Sex	Outcome (confirmed)	Confirmed level of harm	Classifications	Medication Process	Medication Issue	Medication Name	Medication AMT Generic Medication Term	Medication Form	Medication Strength Units	Medication Strength Type	Summary	Details
[redacted]	[redacted]/12/2020	Gold Coast University Hospital	33	Female	1	Harm - permanent	Medication	Administration	Incorrect dose	acetylcysteine 2 g/10 mL injection, ampoule	acetylcysteine	ampoule	200	mg/mL	NAC infusion administered with incorrect dose.	Noted at 1500 that the maintenance dose of NAC infusion for this patient has not been infusing at a correct dose. The prescription was NAC 8,800mg in 1L of Dex 5% to be infused in 16hrs at a rate of 62.5ml/hr. However, the rate that was entered in the Braun pump was 5.5ml/hr instead of 62.5ml/hr.
[redacted]	[redacted]/08/2020	Gold Coast University Hospital	78	Female	2	Harm - temporary (moderate)	Medication	Administration	Incorrect medicine	septrin forte	No generic found	tablet	160mg/ 800m	mg/each	pt was d/c home with a medication that was not her own, pt then took medication and had adverse reaction	Pt was D/C home with septrim forte as it was in her draw, despite having allergy documented for this medication and this medication not being prescribed to her. Pt took it home 19/8/20 at D/C. On sunday 23rd pt took 2x tablets of septrin forte confusing it for paracetamol.Pt had adverse reaction of palpitaitions, tremors, feeling dizzy.approximately 5hours post taking these tablets.
[redacted]	[redacted]/09/2020	Gold Coast University Hospital	67	Female	2	Harm - temporary (moderate)	Medication	Prescribing	Other prescribing issue	amlodipine and metotrexate	No generic found	tablet	10mg	mg/g	patient had [redacted] and before discharge from ICU, pre-op drugs (antihypertensive and immunosupressive) were prescribed, patient had hypotension on the ward and had to return to ICU	Two issues: 1. prescription of drugs by [redacted] as pre-op before discharge to ward. this problem is worse on the weekend as we don't a resident. The two drugs prescribed, amlodipine and metotrexate, should have never been prescribed in this setting. 2[redacted] worked 20 hours over the weekend, having to perform lenght investigation in 2 sick patients (one with pacreatitis and another with a posisble infected aortic graft), and one of them had to be operated on Sunday. This prescribing issue fro ICU was overlooked due to lack of resident support on the weekend and our registrar overworked. This proble is recurrent has already been reported.
[redacted]	[redacted]/05/2020	Robina Hospital	89	Male	2	Harm - temporary (moderate)	Medication	Prescribing	Medicine not ceased	Risedronate	No generic found	tablet	30mg daily	mg/each	[redacted] on Risedronate 30mg daily (previously Alendronate 40mg daily) since 1998 This treatment is usually administered for 2-3 months then ceased	[redacted] Initially treated with Alendronate 40mg once daily Switched to Risedronate 30 mg once daily before 2010 Difficult to get an accurate estimation of bisphosphonate exposure [redacted] History of around 20 short term admissions to Gold Coast Health and there was no cessation of the Risedronate [redacted]
[redacted]	[redacted]/11/2020	Gold Coast University Hospital	39	Male	2	Harm - temporary (moderate)	Medication	Transfer of information	Incorrect / incomplete information in Discharge Medication Record	insulin neutral human 100 units/mL injection, vial	insulin neutral human	vial	100	international unit/mL	No Insulin charted on discharge to ward, pt developed DKA	No Insulin

Medication related events entered into Riskman for the period 01/01/2020 - 31/12/2020

SAC Rating	*Total events*	*% of Total*	1b. Incorrect medicine	Incorrect volume	1d. Unintended medication
SAC1	1	0.04%	0	1	0
SAC2	14	0.60%	2	2	0
SAC3	1321	56.96%	192	436	42
SAC4	983	42.39%			
Grand Total	**2319**		**194**	**439**	**42**

SAC1	Death or permanent harm
SAC2	Temporary harm (moderate)
SAC3	Temporary harm (minor) or no harm - did reach patient
SAC4	No harm - did not reach patient

Please note that all significant incidents are reviewed by the HHS, including independent reviews for all SAC 1 incidents, to support transparency, open discussions, identification of learnings and improvements and support a strong safety culture.

NOTES

1. Only events with a confirmed SAC rating are included.
2. Where obvious, duplicate records have been removed.

For the statistical breakdown:

3. Only events with confirmed SAC rating of 1-3 included (SAC 4 is defined as not reaching patient).
4. Incorrect type of drug/medication was equated to the RiskMan medication issue
   - administered with known allergy
   - incorrect medicine
5. Wrong volume of drug/medication was equated to the RiskMan medication issues
   - incorrect dose
   - Incorrect frequency
   - Incorrect or incomplete strength
   - Incorrect quantity
   - Incorrect rate
   - Incorrect rate of administration
   - Incorrect strength or concentration
   - Omitted dose
6. A drug/medication not prescribed/intended for patient was equated to the RiskMan medication issues
   - incorrect patient
   - ceased medication administered.

Metro North Hospital and Health Service

5 most serious medication events entered into Riskman for the period 01/01/2020-31/12/2020

Incident ID	Incident Date	Facility	Age	Sex	Outcome (confirmed)	Confirmed level of harm	Classifications	Medication Process	Medication Issue	Medication Name	Medication AMT Generic Medication Term	Medication Form	Medication Strength Units	Medication Strength Type	Summary	Details
[redacted]	[redacted]/06/2020	Caboolture Hospital Campus	47	Female	1	Harm - permanent	Medication	Administration	Incorrect administration technique	misoprostol	No generic found	tablet	400mcg	microgram/ each	misprostol given prior to pregnancy test	pt was given misoprostol prior to pregnancy test. Test was positive.

	/12/2020		87	Male	1	Harm - permanent	Clinical process # Medication	Pharmacy preparation / dispensing / supply	Incorrect directions	Aspirin	No generic found	tablet	100mg	mg/each	Aspirin incorrectly started prior to OPD review resulting in worsening of bleed seen on routine 6/52 prior to review.	Patient was in Plan from was that aspirin should not be recommenced until OPD review at ~6/52 post-op. Aspirin was witheld during admission. Script was not written for aspirin at time of patient's discharge and the pharmacist stated it should not be recommenced until review. Patient was discharged Whilst patient was on aspirin was restarted. Patient had a routine at 6/52 post-op prior to review which showed worsening of bleed.
	/08/2020	Royal Brisbane and Women's Hospital (Herston Campus)	64	Female	2	Harm - temporary (moderate)	Medication	Discharge medication management		Warfarin	No generic found	tablet	5.5mg		Cardiac arrest and death a /08/202. Form 1a progressed to Coroner with autopsy certificate identifying cause of death as pulmonary thromboembolism.	Correspondence received from advising of cause of death on autopsy certificate as pulmonary thromboembolism and that as changes to anticoagulation medication for may wish to review case.
	/08/2020	The Prince Charles Hospital Campus	57	Male	2	Harm - temporary (moderate)	Clinical process # Medication	Monitoring	Failure to obtain levels prior to medication administration / prescribing	enoxaparin sodium 60 mg/0.6 mL injection, syringe	enoxaparin sodium	syringe	60	mg/mL	Patient commenced on bridging Clexane when warfarin ceased. INR 4.0 on commencement, 7.1 when rechecked 5 days later (had received Clexane 60mg BD the entire time). Admitted to ICU the following day with ?HAP + pulmonary haemorrage/haemoptysis	The patient has had an extended stay in hospital with Legionella pneumonia, team wanted an INR of <1.5 prior to removing the line, so the decision was made on Tuesday 11/8 to cease warfarin (done) and commence bridging Clexane (60mg subcut BD, CrCl ~40mL/min; Hb 82). The order for Clexane was written up at that time, without acknowledgement that the morning's INR was 4.0. This was reviewed and annotated on the order by the pharmacist, without getting the medical team to review the order. The patient's INR was 4.2 the following day (Wednesday 12/8) - they received 1500units Prothrombinex , without rechecking the INR prior to the procedure. The INR (4.2) was again annotated by the pharmacist, yet the medical team did not review nor were they alerted to review the order. The patient continued to receive Clexane 60mg BD over the next 4 days, being reviewed by the pharmacist and medical officers for an antiXa (0.47 at 11:47 13/8, 4hrs post the 4th dose). An INR was not rechecked until Sunday morning 16/8, which came back at 7.1 (Hb 64 - received 2xPRCs prior to INR returning). The high INR was reviewed by the weekend pharmacist, who noted the patient was still receiving Clexane BD and asked for the order to be withheld. Clexane was W/H AM 16/8, PM 16/8, AM 17/8 and then the patient was admitted to ICU on Monday 17/8 following multiple MET calls for respiratory distress - working diagnosis of HAP + large volume haemoptysis ?pulmonary haemorrhage. Addit: patient intubated PM 20/8

Further information regarding the Top 5 events listed above

Incident 1 This incident is an open coronial investigation.

Incident 3 As per Clinical Incident Analysis Team recommendations, this incident has been downgraded to a SAC 2 since this data was extracted.

Medication related events entered into Riskman for the period 01/01/2020 - 31/12/2020

SAC Rating	*Total events*	*% of Total*	Incorrect	t volume	Unintended medication
SAC1	3	0.05%	0	0	0
SAC2	42	0.72%	5	9	3
SAC3	3714	63.29%	322	1241	131
SAC4	2109	35.94%			
Grand Total	**5868**		**327**	**1250**	**134**

As stated above, upon review and downgrading of an event after the data was extracted, there were a total of 2 SAC1 events and 43 SAC2 events

SAC1	Death or permanent harm
SAC2	Temporary harm (moderate)
SAC3	Temporary harm (minor) or no harm - did reach patient
SAC4	No harm - did not reach patient

NOTES

1. Only events with a confirmed SAC rating are included.
2. Where obvious, duplicate records have been removed.

For the statistical breakdown:

3. Only events with confirmed SAC rating of 1-3 included (SAC 4 is defined as not reaching patient).
4. Incorrect type of drug/medication was equated to the RiskMan medication issue
   - administered with known allergy
   - incorrect medicine
5. Wrong volume of drug/medication was equated to the RiskMan medication issues
   - incorrect dose
   - Incorrect frequency
   - Incorrect or incomplete strength
   - Incorrect quantity
   - Incorrect rate
   - Incorrect rate of administration
   - Incorrect strength or concentration
   - Omitted dose
6. A drug/medication not prescribed/intended for patient was equated to the RiskMan medication issues
   - incorrect patient
   - ceased medication administered.

Metro South Hospital and Health Service **5 most serious medication events entered into Riskman for the period 01/01/2020-31/12/2020**

Incident ID	Incident Date	Facility	Age	Sex	Outcome (confirmed)	Confirmed level of harm	Classifications	Medication Process	Medication Issue	Medication Name	Medication AMT Generic Medication Term	Medication Form	Medication Strength Units	Medication Strength Type	Summary	Details
[redacted]	[redacted]/01/2020	PAH-Building 1	51	Female	2	Harm - temporary (moderate)	Medication	Administration	Patient reaction to medication	Lignocaine	No generic found	dose	10%	%/each	Drug reaction to lignocaine.	Booked for [redacted]. Consented for procedure. Medical officer administered lignocaine oral gel and throat spray as per normal procedure. Approx 15ml of oral gel and ?5 sprays of lignocaine administered. Approximately 5-10minutes later, patient became aphasic and began to seize. RRT called. Code Stroke called. ICU Senior Register called to attend for airway emergency. ICU Outreach and Resuscitation team present. Cardiology Advanced Trainees and Consultants present. Patient administered 2mg midazolam to terminate seizure. Patient transferred to Emergency Department for CT head. Patient subsequently intubated post CT head for drop in GCS and inability to protect her airway. Later transferred to ICU.
[redacted]	[redacted]/01/2020	PAH-Building 1	52	Male	2	Harm - temporary (moderate)	Medication	Administration	Patient reaction to medication	lignocaine	No generic found	bottle	2	%/each	Adverse reaction to medication	[redacted] procedure. Patient consented. Nil concerns on arrival. Patient administered ~10ml viscous lignocaine and ~ 10 sprays of lignocaine. Developed confusion and decreased GCS with seizure activity. RRT called plus airway emergency. Seizure terminated with midazolam. Patient developed hypotension- administered aramine. Patient transferred to emergency department.
[redacted]	[redacted]/04/2020	QEII Hospital	58	Male	2	Harm - temporary (moderate)	Medication	Monitoring	Other monitoring issue	Vancomycin	No generic found	vial	mg	mg/mL	Vancomycin induced AKI	SCr rise from 84 to 271 on 11/4. Vanc was continued at same maintenance dose (dose should be reduced or frequency should be changed) It only ceased the following dose 12/4 after morning dose. vanc level on the 12/4 was 60mg/L. This is 3 times the acceptable trough level.
[redacted]	[redacted]/09/2020	PAH-Building 1	65	Male	2	Harm - temporary (moderate)	Clinical process # Medication	Prescribing	Other prescribing issue	Naloxone	No generic found	ampoule	400	microgram/mL	Naloxone administered during code for oversedation	Pharmacist advised NS that all episodes of naloxone being administered during a code must be riskmanned so the hospital has a record of events. In this case 400mcg of naloxone was administered during the RRT in response to oversedation from the cumulative doses of methadone given over the past 3/7.
[redacted]	[redacted]/10/2020	QEII Hospital	89	Female	2	Harm - temporary (moderate)	Medication	Transfer of information	Incorrect / incomplete information in Discharge Medication Record	Insulin, amlodipine	No generic found	injection device	4 units	unit/mL	Patient was discharged from QEII [redacted] with an outdated medication list and interim medication administraion record (IMAR)	Patient was discharged from QEII [redacted] with an outdated medication list and interim medication administraion record (IMAR) Prior to this admission, the patient [redacted] The ward pharmacist authorised a medication list and IMAR that was the same as the previous discharge [redacted]. However, during that time the patient's medications had changed [redacted]. In particular, her insulin Optisulin and Novorapid doses were significantly reduced and amlodipine was ceased. When patient arrived at [redacted] nursing staff administered medications off incorrect IMAR, resulting in patient receiving much higher insulin doses than before. Patient then had an hypo and unresponsive episode with BGLs 2mmol/L and was brought via QAS to PAH for investigation

Contextual notes

Incident 1: Patient was administered additional doses of oral lignocaine 10% spray resulting in lignocaine toxicity. Order was for 1 spray up to 3 times. Patient had seizure; Rapid Response Team called with ICU Outreach and resuscitation team present. Patient was admitted to CCU.

Incident 2: Patient was administered additional doses of oral lignocaine 10% spray resulting in lignocaine toxicity. Order was for 1 spray up to 3 times. Patient had seizure; Rapid Response Team called with resuscitation team present. Administered anticonvulsants which resulted in seizure terminating. Patient transferred to the Emergency Department and then admitted to CCU.

Incident 3: Vancomycin 1.35g BD intravenously was prescribed and administered at same maintenance dose for 3 days despite an acute kidney injury. Vancomycin concentration three times the acceptable level. Vancomycin ceased and alternate antibiotic prescribed. Patient's renal function recovered without intervention.

Incident 4: Difficulty with acute pain and agitation management in an opioid naïve patient resulting in Methadone Hydrochloride 10mg being administered as well as Diazepam. Patient became sedated and required Rapid Response Team administering Naloxone to reverse the effects.

Incident 5: Patient was discharged without the correct reduced insulin order for Optisulin and Novorapid. This had been reduced while the patient was in hospital but a previous medication chart from an admission 3 weeks prior had been sent incorrectly with patient. Patient had an unresponsive episode and low blood sugar. QAS was called and patient transferred to Emergency.

SAC Rating	*Total events*	*% of Total*	1b. Incorrect medicine	Incorrect volume	1d. Unintended medication
SAC1	0	0.00%	0	0	0
SAC2	12	0.31%	0	2	0
SAC3	2456	62.78%	300	817	79
SAC4	1444	36.91%			
Grand Total	**3912**		**300**	**819**	**79**

SAC1	Death or permanent harm
SAC2	Temporary harm (moderate)
SAC3	Temporary harm (minor) or no harm - did reach patient
SAC4	No harm - did not reach patient

NOTES

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   - Incorrect strength or concentration
   - Omitted dose
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   - incorrect patient
   - ceased medication administered.