Board of Directors' Meeting: 8 June 2023

Agenda item		065/23		
Report Title		Annual Medication Safety Report.		
Executive Lead		Dr John Jones – Executive Medical Director.		
Report Author		Andy Harris – Medication Safety Officer.		
CQC Domain:		**Link to Strategic Goal:**		**Link to BAF / risk:**
Safe	√	Our patients and community	√	
Effective	√	Our people	√	
Caring	√	Our service delivery	√	**Trust Risk Register id:**
Responsive	√	Our governance	√	
Well Led	√	Our partners	√	
Consultation Communication		Quality Operational Committee, 18 April 2023.		
Executive summary:		This report is presented to the Board of Directors to highlight the role of the Medication Safety Officer (MSO) within the Shrewsbury and Telford NHS Trust. The report will provide oversight of reported medication-related incidents and alerts received within the Trust and an insight into challenges relating to medicines safety. The following are included as part of the paper: • Summary of reported medication-related incidents via the Datix system. • Overview of: o Medicines-related NHS England Patient Safety Alerts, o Medicines-related Never Events o Medication shortages and supply disruptions. o Summary of ICS medication safety group quarterly meetings. o Focus for the future/continuing work.		
Recommendations for the Board:		The Board is asked to: Take **assurance** and note the contents of this report.		
Appendices:		Appendix 1: Observation of medication administration report		

1.0 Medication Safety Officer (MSO).

1.1 The role of Medication Safety Officer (MSO) was created in 2014 in response to a Patient Safety Alert from NHS England, which called for large healthcare organisations to have a named person responsible for medicines and medical device safety. The role being central to working towards safer use of medicines in a range of different organisations including mental health trusts.

The aim of the alert and key responsibilities of the MSO are to help ensure:

- There is a clear lead for medication safety.
- Communication about medication safety between local and national levels would be improved.
- Medication error incident reports would be regularly reviewed, including by multi-professional groups.
- A focus on improvements in incident reporting
- Learning and local actions needed to improve medication safety are taken.

MSOs work as a member of the medication safety group and are active in a National Medication Safety Network that support improved communications and feedback on reported safety issues, monthly webinars, online forums, conferences, and workshops.

An estimated 237 million medication errors occur in the NHS in England every year. In March 2017, the World Health Organisation launched its third global patient safety challenge 'Medications without harm' with the aim of reducing severe avoidable medication-related harm by 50% in five years. In response to this, NHS England also launched the Medicines Safety Improvement programme as a key part of the NHS patient safety strategy to deliver safety and quality improvements across the NHS in England.

In June 2019, the Care Quality Commission (CQC) published the document: Medicines in health and adult social care – Learning from risks and sharing good practice for better outcomes. The report that focused on acute hospital services identified several key themes pertinent to providers of acute hospital services which included prescribing errors, capacity of pharmacy services and high-risk medicines such as anti-coagulants and insulin. Recommendations within the document stated "The role of Medication Safety Officer is crucial to the oversight and responsibility for safety particularly regarding prescribing, monitoring and administration of high-risk medicines, including insulin. This role should have higher recognition at board level. By providing updates on areas of concern from a Medicine's Safety Officer, a trusts board can be aware of issues and track progress on medicines safety".

More recently in November 2021, the Care Quality Commission (CQC) published a report: Medicines safety in NHS trusts that looked at the effectiveness of MSOs in NHS trusts in England. The report looked into what healthcare profession held the role of MSO, it looked at Medication governance, incident reporting and learning, learning across national and local networks and learning within NHS trusts.

1.2 The role of Medication Safety Officer for Shrewsbury and Telford NHS Trust was appointed to on the 1 August 2021 by Andrew Harris.

1.3 Since August 2021, Medication Safety reports have been submitted to the Quality Operational committee (QOC) on a quarterly basis to outline key priorities for the role to ensure the safe management of medicines across the trust.

The report includes:

- Summary of reported medication related incidents via the Datix system.
- Overview of:
  - Medicines related NHS England Patient Safety Alerts,
  - Medicines related Never Events
  - Medicines related Serious Events
  - Medication shortages and supply disruptions.
  - Future focuses for medication safety.

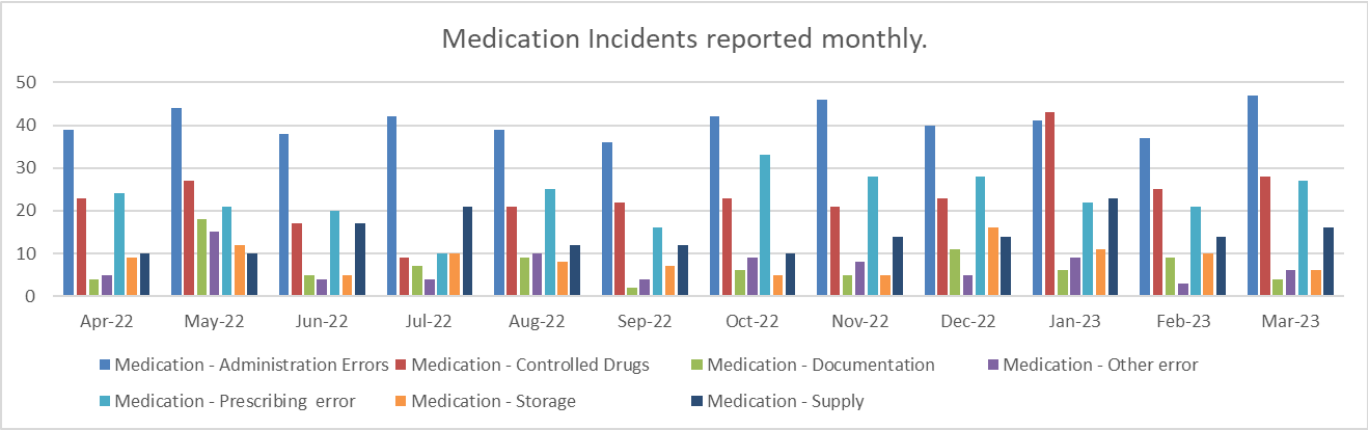
2.0 Medication related incidents.

2.1 A total of 1493 medication related incidents were reported via the Datix electronic incident reporting system for the review period of 1 April 2022 to 31 March 2023. The number of incidents has increased from 1027 for the review period of 1 April 2021 to 31 March 2022. There have been no identified themes or concerns linked to this increase. The development of an open and honest reporting culture and support to investigate is to be noted and championed. Table 1 and SPC 1 detail medication related incidents reported on a monthly basis for this review period.

Table 1.

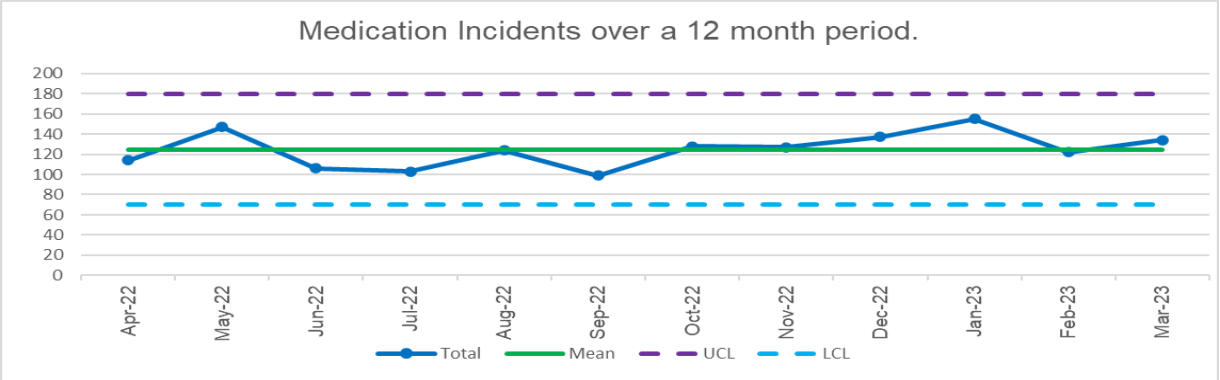
	Apr-22	May-22	Jun-22	Jul-22	Aug-22	Sep-22	Oct-22	Nov-22	Dec-22	Jan-23	Feb-23	Mar-23	Grand Total
Medication - Administration Errors	39	44	38	42	39	36	42	46	40	41	37	47	**491**
Medication - Controlled Drugs	23	27	17	9	21	22	23	21	23	43	25	28	**282**
Medication - Documentation	4	18	5	7	9	2	6	5	11	6	9	4	**86**
Medication - Other error	5	15	4	4	10	4	9	8	5	9	3	6	**82**
Medication - Prescribing error	24	21	20	10	25	16	33	28	28	22	21	27	**275**
Medication - Storage	9	12	5	10	8	7	5	5	16	11	10	6	**104**
Medication - Supply	10	10	17	21	12	12	10	14	14	23	14	16	**173**
Grand Total	**114**	**147**	**106**	**103**	**124**	**99**	**128**	**127**	**137**	**155**	**119**	**134**	**1493**

SPC 1.



SPC 2 details medication related incidents reported over time demonstrating common cause variation.

SPC2.



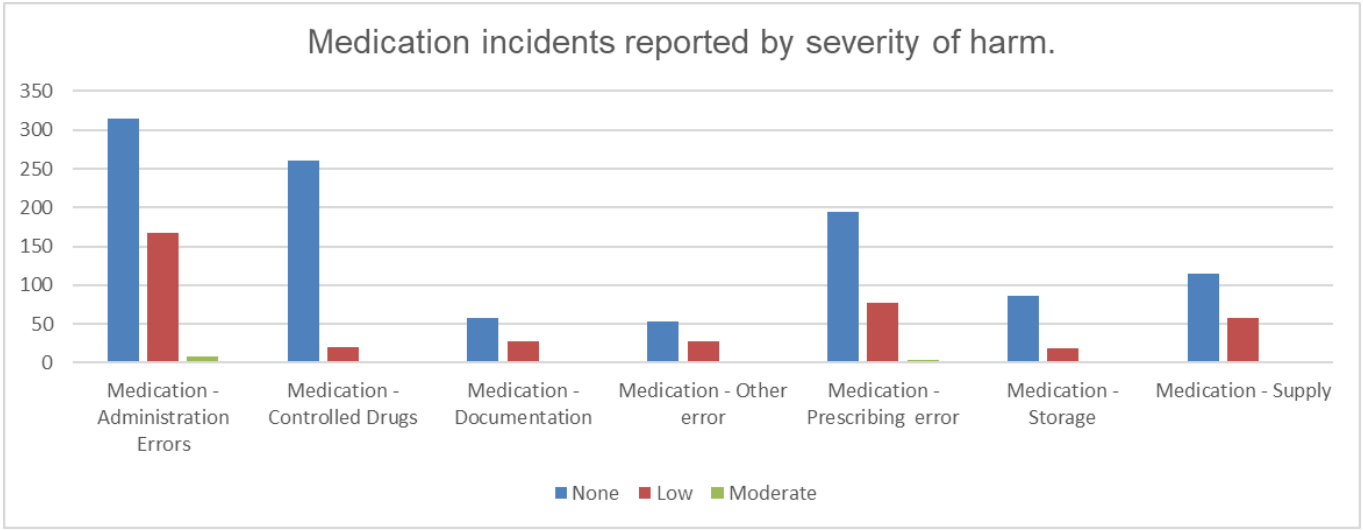
2.2 Severity of reported medication related incidents:

Of the 1493 reported medication related incidents, 1082 were rated as no harm, 397 as low harm, and 14 as moderate. There were no severe and no deaths resulting from medication related incidents within this review period. Table 2 and SPC 3 detail reported incidents by category and severity rating.

Table 2.

By Severity of Harm	None	Low	Moderate	Grand Total
Medication - Administration Errors	315	168	8	**491**
Medication - Controlled Drugs	261	20	1	**282**
Medication - Documentation	57	28	1	**86**
Medication - Other error	53	28	1	**82**
Medication - Prescribing error	195	77	3	**275**
Medication - Storage	86	18	0	**104**
Medication - Supply	115	58	0	**173**
Grand Total	**1082**	**397**	**14**	**1493**

SPC 3.



2.3 Medication - Administration Errors is consistently the highest reporting category of incidents relating to medication. Good working relationships between divisional governance teams, clinical teams and the MSO have been established and working hard to investigate individual incidents to identify trends and learning.

The following actions have been put in place and are working well to identify and investigate incidents including:

- A dashboard on the Datix system that highlights all medication administration related errors that is reviewed daily.
- Regular face to face meeting between the MSO and Ward managers/matrons from high reporting locations to discuss incidents and to support individuals involved in incidents.
- The introduction of “Medication Safety Champions” in high reporting locations that support investigation and implement identified learning following investigation.

2.31 To better understand current practice and to identify common themes and potential changes in practice and learning opportunities it was discussed and agreed that the medication safety officer will shadow nursing staff in the preparation, administration, and documentation of medication within a high reporting Ward.

In June 2022, the medication safety officer spent a week observing nursing staff on Ward 31 (Surgical admissions unit). The full report is attached to this report (ANNEX 1) with recommendations summarised below:

- *To standardise the layout of drug trolleys used in the process of administration.*
- *To standardise the process of administration of medication including:*
    - *Initial introduction to patients of administration*
    - *How medication supply is sourced*
    - *The use of drug trolleys to support safe administration.*
    - *Documentation of administered doses*
    - *Actions taken for omitted doses.*

- *To ensure nurses involved in the preparation and administration of medication are aware and understand available resources to safely administer medication including the BNF and Medusa.*
- *To ensure nurses action omitted doses appropriately and refer to relevant specialist services to support. This is especially important for critical medications.*
- *To ensure resources and policies such as the Self-administration policy and Covert administration of medications are used to support safe and effective management of medication.*
- *To enable and support nurses to challenge poor prescribing of medication.*
- *To ensure the national and trust standards for storage of mediation is in place for both patient specific and stock medications.*
- *To standardise patient mediation lockers to better enable self-administration of medication.*
- *To introduce clear structure to support the prescribing of mediation and medication queries/concerns.*
- *To ensure transfer of patients into Wards/departments is actioned and documented appropriately and prescription charts/medication and administered mediations are appropriately communicated/handed over.*

Work is on-going to ensure recommendations within the report are embedded within practice and rolled out to all appropriate Ward and department locations.

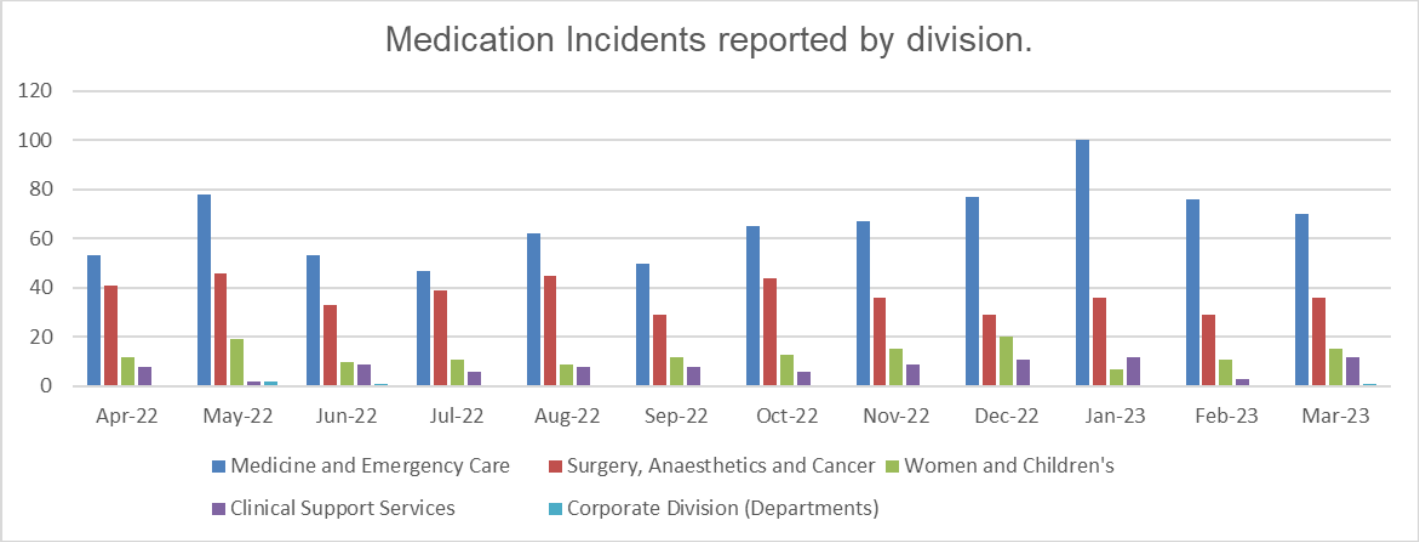
2.4 Medication related incidents by division.

Table 4 and SPC 5 detail medication related incidents reported by divisions within the organisation.

Table 4

Division:	Apr-22	May-22	Jun-22	Jul-22	Aug-22	Sep-22	Oct-22	Nov-22	Dec-22	Jan-23	Feb-23	Mar-23	Grand Total
Medicine and Emergency Care	53	78	53	47	62	50	65	67	77	100	76	70	798
Surgery, Anaesthetics and Cancer	41	46	33	39	45	29	44	36	29	36	29	36	443
Women and Children's	12	19	10	11	9	12	13	15	20	7	11	15	154
Clinical Support Services	8	2	9	6	8	8	6	9	11	12	3	12	94
Corporate Division (Departments)	0	2	1	0	0	0	0	0	0	0	0	1	4
Grand Total	**114**	**147**	**106**	**103**	**124**	**99**	**128**	**127**	**137**	**155**	**119**	**134**	**1493**

SPC 5.



Medicine and Emergency Care are consistently the highest reporting division. Regular meetings between clinical teams, divisional governance and the MSO are in place to discuss incidents, co-ordinate investigation and identify and integrate changes in practice and embed learning.

Table 3 details the top ten reporting Ward/department locations within the organisation for this review period. Both accident and emergency departments are consistently the highest reporting locations. Working groups with representation from Accident and Emergency departments, Pharmacy and the MSO meet on a regular basis to discuss and investigate incidents and to support developments in services that include:

- A review of the ED CAS card and potential for the addition of sections of the in-patient drug chart to support good prescribing and administration practice.
- The introduction of posters directing patients who attend ED prescribed regular critical medications such as insulins, Parkinson's medication, and anti-epileptic medication to contact clinical staff who will aim to continue treatment during attendance to the departments (if appropriate).

- The introduction of medication link nurses within both ED departments.

Table 3.

Location	number of reported incidents
Accident & Emergency - PRH / CDU	127
Accident & Emergency - RSH / CDU	109
AMU - RSH (Ward 29)	64
Ward 33 - Surgical Short Stay	59
AMU - PRH / Same Day Emergency Care SDEC (PRH)	52
Ward 37 - General Surgery	47
Ward 32- Medicine/Endocrinology	45
Acute Orthopaedic Trauma Unit (AOTU) (RSH) (old ward 22 OT)	44
Ward 22 SS - Medical Short Stay	42
Ward 11 - Nephrology	40
Grand Total	**629**

A dedicated acute medical admissions medicines management team has been established. The team consists of a specialist pharmacist and pharmacy technician who focus on providing a highly specialised clinical pharmacy service to the acute admissions areas. The team has already developed strong working relationships with the acute admissions teams and benefits include a reduction in medication related incidents and services improvements including the transfer of medications to in-patient Wards following transfer. The specialist pharmacist is currently working towards the independent prescriber's qualification.

3.0 Medicines related NHS England Patient Safety Alerts

There has been five National Patient Safety Alerts relating to medication received within this review period. All National Patient Safety Alerts are presented to Review Actions and Learning from Incidents Group (RALIG) for review, action, and closure.

3.1 NatPSA/2022/003/NHSPS: Inadvertent oral administration of potassium permanganate.

Received 5 April 2022 with completed actions required by 4 October 2022.

Potassium permanganate is used to treat weeping/blistering skin and infected eczema. It is not a licensed medication but routinely supplied by pharmacy in the form of a tablet that requires dilution. If ingested orally as a tablet it is highly toxic and can be fatal.

The required actions for SaTH are:

Advised Action	Action Taken	Completed Date
Review usage of Potassium permanganate to consider if the benefit of use outweighs the risk.	Completed: There have been 0 stock issues and two patient specific supplies within the last 18 months. Following presentation to Safe Medicines Practice Group it was agreed to remove product from use in the trust.	28 April 2022

Remove all stock from Wards/departments and only supply on a named patient basis only.	Completed: There have been 0 stock issues and there are no locations within the organisation that stock potassium permanganate.	28 April 2022
Potassium permanganate is to be prescribed as Potassium Permanganate 0.01% Topical Solution with the additional warning label of **HARMFUL IF SWALLOWED** to be added to the dispensing label.	Completed: Potassium permanganate is not on the SaTH formulary. Following presentation to the Safe Medicines Practice Group it was agreed to remove product from ordering systems.	28 April 2022
Potassium permanganate is not to be stored with other medicines for oral/internal use.	Completed: Product is not on formulary or available on ordering systems. No action required.	28 April 2022
Dilution should occur away from the patient, with neither the concentrated nor the diluted form stored near the patient.	Completed: Product is not on formulary or available on ordering systems. No action required.	28 April 2022
Prescriptions are only issued by appropriate prescribers	Completed: Product is not on formulary or available on ordering systems. No action required.	28 April 2022
If potassium permanganate is to be used in a patient's home, a risk assessment must be undertaken before prescribing.	Completed: Product is not on formulary or available on ordering systems. No action required.	28 April 2022
And all patients must be supplied with a patient information leaflet on supply of potassium permanganate.	Completed: Product is not on formulary or available on ordering systems. No action required.	28 April 2022

Link to NatPSA/2022/003/NHSPS: Inadvertent oral administration of potassium permanganate.

Update as of 31 March 2023: All actions have been completed and this alert has been closed. There have been no identified incidents resulting from the removal of potassium permanganate from formulary or availability within the organisation.

3.2 **NatPSA/2022/006/DHSC - Shortage of Alteplase and Tenecteplase injections.**

Received 3 August 2022 with a completion deadline of 10 August 2022.

Due to supply constraints facing alteplase (Actilyse®) 10mg, 20mg and 50mg and Tenecteplase (Metalyse®) 10,000unit injections for the remainder of 2022 required actions to manage existing stock and use alternative therapeutic options where appropriate are to be introduced.

Required actions and responses relevant to SaTH:

Advised Action	Action Taken	Completed Date
Assess stock holding of alteplase and Tenecteplase injections to ensure current stock levels are correctly recorded in pharmacy systems.	Completed: Full physical stock checks have been completed at Ward/department level and within Pharmacy departments. All recorded in JAC (Pharmacy stock management system).	8 August 2022
Centralise stock in pharmacy where appropriate to do so.	Completed: Wards/departments with low turnover and usage other than for the treatment of acute ischaemic stroke have been removed and centralised to pharmacy. Wards/departments known to treat Stroke patients continue to have appropriate stock: Wards 15/16 (PRH) and Emergency departments (RSH/PRH).	8 August 2022
Alteplase stock should be conserved for patients with acute ischaemic stroke, given the lack of an alternative and the significant risk of harm without receipt of treatment.	Completed Guidelines drafted and approved for alternative drugs to be used outside the treatment of acute ischaemic Stroke. Trust communications in the form of a One-minute brief detailing the alert and changes in practice is to be released.	10 August 2022
Reduce wastage by selecting appropriate vial sizes and using the most appropriate doses, giving consideration to rounding down to the nearest whole vial.	Completed: Guideline directs to the appropriate use of vial sizes and doses. Centralised stock held in pharmacy will only be issued using appropriate vial size to minimise waste	10 August 2022
Pharmacy staff should order alteplase injections in line with their allocations and order Tenecteplase injection in line with historic order patterns; unusual orders will be challenged.	Completed: Pharmacy procurement lead is working closely with regional procurement leads to ensure appropriate allocation is managed. No Tenecteplase used historically and therefore no allocation going forward. Alteplase allocation ordered and received no further supply available until next national allocation release.	10 August 2022

Pharmacy staff should liaise with their Regional Pharmacy Procurement Specialist to manage allocated stocks of alteplase. Ensuring proactive stock management and prompt liaison should stock levels become critically low.	Completed: Continual discussion between pharmacy procurement leads and regional procurement to ensure available allocation for Stroke patients with a plan to seek mutual aid via regional pharmacy procurement team if stocks become critically low.	10 August 2022

Link to Trust comms (One-minute brief released 9 August 2022):
ALTEPLASE shortage one-minute-brief 9_8_22 - final (002).pdf (sath.nhs.uk)

Link to Trust guidelines released to support appropriate use of Alteplase and guidance for use of alternative drugs for use other than acute ischaemic stroke:
Microsoft Word - Alteplase supply disruption Memo - interim guidance - v1 (sath.nhs.uk)

Update as of 31 March 2023: Further communications have extended the supply disruption to at least December 2023. There are no additional actions required with existing measures to be continued until the supply disruption comes to an end. Communications have been released to relevant specialities alerting to extending supply disruptions. There have been no identified increases in incidents relating to this supply disruption.

3.3 **NatPSA/2022/006/DHSC – Recall of Mexiletine hydrochloride 50mg, 100mg and 200mg Hard Capsules, Clinigen Healthcare Ltd due to a potential for underdosing and/or overdosing.**

Received 4 August 2022 with a completion deadline of 12 August 2022.

Clinigen healthcare Ltd (manufacturer) has initiated a recall of three batches of Mexiletine Hydrochloride hard capsules due to a potential risk of underdose or overdose with potential to have consequences for the safety of patients.

Required actions and responses relevant to SaTH:

Advised Action	Action Taken	Completed Date
Stop supplying the impacted batch immediately. Quarantine all remaining stock and return it to your supplier/MAH using your supplier's approved process.	Completed: Impacted stock has been received into the trust: Mexiletine 50mg capsules BN 2111216 2 x 84 on 8 June 2022. Both packs had been issued to patients under care of SaTH during in-patient stay. No further stock of affected batches stocked within SaTH.	10 August 2022
Identify and immediately contact all patients who have been dispensed the impacted batch and ask them to confirm	Completed: Both patients contacted:	10 August 2022

if they have remaining stock within their possession. If batch traceability information is not available, all patients dispensed this product since 10 February 2022 should be contacted.	**Patient 1**: Taken all doses from supply of affected batch from SaTH. Further supply (affected batch supplied by community chemist) has caused identified symptoms. Patient was advised to contact GP urgently after discussions with pharmacist (confirmed). Contact was made with community chemist. **Patient 2:** Patient has taken some tablets but still has supply of affected batch supplied by SaTH. No side effects were identified. Contact made with SaTH prescribing consultant and agreement to continue treatment. Resupply of unaffected batch and return of affected stock was arranged and patient was supplied with the supplementary letter, MHRA notification information and was counselled by pharmacist. Appointments has been made (Week of 8 August 2022) for clinical review of both patients with possible swap to alternative treatment considered.	
If the pharmacist identifies any patients with an impacted batch, they should, in the first instance, contact the patient's GP and discuss alternative mexiletine treatment of the patient. As this is a specialist use product and patients may require monitoring, other clinicians and healthcare professionals may need to be involved.	Completed: As above, Patients GPs have been contacted and provided with relevant information regarding alternatives. Depending on outcomes of SaTH clinical review appointments, both patients may be switched to alternative products	10 August 2022
Discuss the risk of cardiac arrhythmias with patients and advise them to seek urgent medical attention if they experience any new or worsening of symptoms of an arrhythmia including palpitations, angina pain, chest discomfort, dizziness and loss of consciousness.	Completed: Both patients were counselled by an appropriate pharmacist to discuss possible symptoms.	10 August 2022

Update as of 31 March 2023: All actions have been completed and this alert has been closed. There have been no identified incidents resulting from this drug recall and there has been no impact to patient care moving forward.

3.4 **NatPSA/2023/001/NHSPS: Use of oxygen cylinders where patients do not have access to medical gas pipeline systems.**

Link: NatPSA_2023_001_NHSPS.pdf (sath.nhs.uk)

Received 9 January 2023 with a completion deadline of 20 January 2023.

To help NHS organisations prevent risks associated with the use of medical gas cylinders, NHS England has issued a summary of best practice guidance on the 'Safe use of oxygen cylinders. This National Patient Safety Alert asks providers to review the guidance and ensure a risk assessment is undertaken in all escalation/transient areas where patients are being acutely cared for (either temporarily or permanently) without routine access to medical gas pipeline systems.

Required actions and responses relevant to SaTH:

Advised Action	Action Taken	Completed Date
The chair of acute trust medical gas committee, working with key clinical/non-clinical colleagues including the local ambulance trust, should review the NHS England 'Safe use of oxygen cylinders' best practice guidance and ensure a risk assessment is undertaken in all areas where patients are being acutely cared for (either temporarily or permanently) without routine access to medical gas pipeline systems.	Completed: An urgent medical gases committee meeting was held with relevant stakeholder and executive oversight.	12 January 2023.
Risk assessment should pay particular attention to: • avoiding unnecessary use of cylinder oxygen and excessive flow rates by ensuring oxygen treatment is optimised to recommended target saturation ranges: • ensuring safe use of oxygen cylinders by clinical staff including: ▪ safe activation of oxygen flow ▪ initial and ongoing checks of flow to patient ▪ initial and ongoing checks of amount of oxygen left in the cylinder - especially during transfer or whilst undergoing diagnostic tests. • fire safety, including: ▪ appropriate ventilation (both in physical environments and in ambulances), ▪ safe storage of cylinders • physical safety, including:	Completed: Risk assessment was completed and approved.	19 January 2023.

▪ awareness of manual handling requirements ▪ safe transportation of cylinders using appropriate equipment ▪ safe storage of cylinders.		
Once the risk assessments have been undertaken, convene the acute trust medical gas committee as soon as possible to review the findings of the risk assessments and formalise an action plan. Ensuring that the committee has executive director representation and ambulance trust input.	Complete. Risk assessment has been completed and the medical gas committee has met to formalise an action plan. The committee meeting and action plan had executive director oversight and approval.	19 January 2023.

The alert has been approved and closed on the Centralised Alert System (CAS) following approval from the Medical Director. The actions within the alert were only to complete a risk assessment. Work identified within the alert is on-going and will be led by the Medical Gas Committee.

Update as of 31 March 2023: All actions have been completed and this alert has been closed. The action plan that resulted from the risk assessment is currently being put into place managed by the Medical Gases Committee.

3.5 **NatPSA/2023/002/CMU: Supply of Licensed and Unlicensed Epidural Infusion Bags.**

Link: file: NatPSA_2023_002 (1).pdf (sath.nhs.uk)

There are supply issues impacting Fresenius Kabi (FK) unlicensed epidural bags containing bupivacaine only and levobupivacaine with fentanyl. These are also impacting Sintetica's licensed epidural bags containing bupivacaine only and bupivacaine with fentanyl.

Required actions and responses relevant to SaTH:

Advised Action	Action Taken	Completed Date
Review products in use and current stock holding to establish the impact of the supply shortage	Completed: Identified two products within the alert that impact SaTH	23 January 2023.

Where necessary, agree a Trust-wide action plan to temporarily use alternative product(s) taking into consideration the need to: • A review an update local guideline, protocols, epidural charts and/or ePrescribing orders sets to reflect agreed changes at Trust level. • Work with Trust MSO/MDSO to review infusion pumps used and whether there is a need to change drug library settings where alternative products are utilised and provide appropriate training. • Review products already being made in a pharmacy aseptic setting to release capacity if necessary. If the products listed in the table identified within the alert are not considered appropriate, seek advice from an anaesthetist on alternative management options, such as epidural bolus administration, regional blocks and patient-controlled analgesia	Completed: Alternative products/presentations have been agreed with relevant specialities. Guidelines, protocols, and prescribing pathways have been updated. Confirmation that infusion pumps require no adjustment. N/A N/A	26 January 2023. 31 January 2023. 26 January 2023. 23 January 2023. 23 January 2023.
If actions 2&3 are deemed unsuitable, a decision to prepare alternative infusions in-house must include a comprehensive risk assessment noting that: • Preparing infusions in pharmacy aseptic facilities should be considered as first line choice. • Preparing epidural infusions in clinical areas poses a significant safety risk and should only be undertaken if: ○ All other options have been exhausted. ○ The risk assessment has been approved by the Chief Pharmacist and Medical Director, and subsequently reported through a board reporting committee.	Completed: N/A N/A N/A N/A	23 January 2023. 23 January 2023. 23 January 2023. 23 January 2023.

This alert has been approved and closed on the Centralised Alert System (CAS) following approval from the Medical Director.

Update as of 31 March 2023: Further communications have extended the supply disruption to at least December 2023. There are no additional actions required with existing measures to be continued until the supply disruption comes to an end. Communications have been released to relevant specialities alerting to extending supply disruptions. There have been no identified increases in incidents relating to this supply disruption.

4.0 Medicines related Never Events.

4.1 There were no reported medication Never Events reported for the review period 1 April 2022 – 31 March 2023.

5.0 Medication shortages and supply disruptions.

Medicine shortages and supply disruptions are becoming increasingly common, often occurring without advance notification. Work continues to develop a robust and co-ordinated approach to best manage and communicate shortages and supply disruptions within the trust to minimise the impact on patient care and safety.

Below is a summary of active supply disruptions affecting first line treatments within the trust.

5.1 Human Normal Immunoglobulin.

Supply of some presentations of immunoglobulin has decreased leading to a shortfall of 3% to 14% when compared with predicted volumes available for use in the UK. This is due to a global decrease in plasma collections which is set to last until ~ Spring 2023.

Trust level allocations have now been cascaded to all trusts in England and volumes agreed with suppliers. Trusts have been advised to assess patients who require long term immunoglobulin therapies and use allocations to minimise the need to switch between presentations and brands. All long-term patients on immunoglobulin had their doses reduced by 25% as per Sub-Regional Immunoglobulin Assessment Panel (SRIAP) recommendations.

Trust wide communications in the form of a one-minute brief have been released and full engagement with relevant stakeholders and prescribers to minimise the impact of this shortage. The shortage of immunoglobulins and the impact caused for treating patients within the trust has been highlighted as a significant risk on the pharmacy risk register.

Note: positive feedback for prescribing and clinical teams: Good management within the trust is resulting in very minimal impact on patient care.

Link to initial trust communications: One-minute brief.

Link to recent trust communications: Memo – shortage of supply

Update as of 31 March 2023:

Product:	
Intratect®	Organisations under allocation with recommendations to use Octagam® 10% for short term patients with indications: ○ Streptococcal Toxic Shock Syndrome, ○ Immune Thrombocytopenic Purpura (ITP), ○ Myasthenia Gravis ○ Guillain-Barre Syndrome (GBS) Current long-term patients to remain on Intratect® No new long-term patients to be started on Intratect® and alternatives to be used
Octagam®	Currently available with organisations under allocation based on historic use and availability.

5.2 **Diamorphine 5mg, 10mg, 30mg 100mg and 500mg injections:**

Supply disruption has been subject to intermittent shortage since early 2020. There has been unreliable supply of any strength and no confirmed date of when the supply disruption is due to end and robust supply is expected.

Trust wide communications have been released in the form of a one-minute brief and full continuing engagement with relevant stakeholders and prescribers is in place.

Recommended alternatives are to use Morphine and Oxycodone where clinically appropriate.

Link to most recent Trust communications: One-minute brief.

Update as of 31 March 2023:

Product:	
Diamorphine 5mg, 10mg, 30mg, 100mg	Supply currently available (subject to change)
Diamorphine 500mg	Unavailable until 12/2024

5.3 **Oral bowel cleansing preparations Moviprep and Plenvu.**

The supply of Moviprep and Plenvu oral sachets used for bowel evacuation has decreased with a manufacturer supply notification issued at the start of September 2022 – The condition is not anticipated to improve until around the second week in October.

The Trust is on an allocation based on previous use and anticipated future requirement. Pharmacy are working closely with the Gastroenterology team to maintain supply for clinically urgent patients as identified below

- Patients on 2 week wait
- Faecal immunochemical test (FIT) positive patients
- Surveillance patients known to be at high risk of cancer.
- Patients in need of urgent treatment/surgery

Supply of other standard bowel preparations such as Picolax are routinely available and Patient derived Group (PGDs) have been prepared should there be a need to supply these medicines arise.

Update as of 31 March 2023.

Product:	
Moviprep and Plenvu oral bowel cleansing preparations.	The organisation is still under limited organisation however, demand is lower than supply restrictions and there is no current impact to patients

5.4 **Oral Antibiotic Liquid Preparations used for Strep A supply disruption:**

Both hospital and community pharmacies are experiencing severe shortages of antibiotic liquids including phenoxymethylpenicillin, amoxicillin, clarithromycin, and erythromycin due to increased demand and a lack of immediate availability of replenishment from wholesalers.

Trust wide communications were released in the form of a one-minute brief highlighting the issue with recommendations.

Trust guidance was drafted and released on using solid form antibiotics during the supply disruption to liquid preparations.

Update as of 31 March 2023.

Product:	
Oral antibiotic liquid preparations	Supply returning but no anticipated re-supply date to pre supply shortage levels. This is not expected to impact on patient care as demand is lower than supply capacity.

5.5 **Chlordiazepoxide 5mg and 10mg capsule supply disruption:** There is a national shortage of Chlordiazepoxide and is currently unavailable from wholesalers. Once stock does become available, it is anticipated that there may not be an enough to meet demand over the coming months.

Trust guidance was drafted and released recommending alternative treatments including adjustment to dosage regimes and relevant clinical implications.

Update as of 31 March 2023:

Product:	
Chlordiazepoxide 5mg capsules	Currently unavailable – anticipated resupply date unknown.
Chlordiazepoxide 10mg capsules	Limited supply available – anticipated resupply date is 10 January 2023 to 27 February 2023. Supply is unreliable.

5.6 **Alteplase (Actilyse) 10mg, 20mg and 50mg powder and solvent for solution for injection and infusion vials:**

A national patient safety alert was issued on the 3 August 2022 regarding the shortage of alteplase highlighting the supply restrictions put in place.

All actions within the alert were completed including the release of trust guidelines supporting appropriate use and alternative treatments outside of the agreed treatment pathways.

The supply disruption was due to end at the start of 2023 however a recent update has extended the disruption to at least the end of 2023. The use of alternative products and temporary guidelines remain in place. There has been no identified increase in incidents related to the switch to alternative products.

Update as of 31 March 2023.

Product:	
Alteplase (Actilyse) 10mg, 20mg and 50mg powder and solvent for solution for injection and infusion vials.	Organisations under allocation with limited availability and restrictions in place. Supply disruption was due to end in early 2023 however it has been extended until at least December 2023.

5.7 **Licensed and Unlicensed Epidural Infusion Bags.**

A national patient safety alert was issued on the 23 January 2023 regarding the shortage of licensed and unlicensed epidural infusion bags containing bupivacaine only and levobupivacaine with fentanyl and bupivacaine with fentanyl bags.

A range of alternative licensed and unlicensed bags is available during the affected period, but the use of these products will require a co-ordinated trust wide approach to ensure safe implementation. All actions within the alert were completed including the adjustment of trust guidelines and a full trust communications launch.

The supply disruption was due to end mid to late February 2023 however stock is still unavailable, and use of alternative products remains in place. There have been no identified increase of incidents related to the switch to alternative products.

Update as of 31 March 2023.

Product:	
Licensed and unlicensed Epidural bags. Products within supply disruption affecting SaTH: - Bupivacaine 250mg/250ml (0.1%) / Fentanyl 500micrograms/250ml infusion bags. - Bupivacaine 312.5mg/250ml (0.125%) infusion bags	Supply disruption was due to end mid to late February 2023 however supply will not be available until at least December 2023. Alternative products remain available and in place.

6.0 ICS Medication Safety Group

6.1 The Shropshire, Telford and Wrekin ICS Medicines safety group was established in October 2021 to allow effective triangulation between the Clinical Commissioning

Group (CCG) and local providers to ensure the effective reporting of medication safety incidents and to promote discussion and share learning relating to medicines safety and risk.

Membership of the group is multi-disciplinary and is made up of Medication Safety Officers (MSOs) and/or Chief Pharmacists and other relevant representatives from:

- Shropshire Clinical Commissioning Group (CCG)
- Shrewsbury and Telford NHS Trust (SaTH)
- Midlands Partnership Foundation Trust (MPFT)
- Robert Jones & Agnes Hunt Orthopaedic NHS Trust (RJAH)
- Shropshire Community Health Trust (SCHT)
- Specialist providers:
    - GP Practices,
    - Community Pharmacies,
    - Care Homes,
    - The Severn Hospice.

6.2 The Shropshire, Telford & Wrekin ICS Medicines Safety Group (MSG) have met on 4 occasions during the review period of 1 April 2022 to 31 March 2023. All meetings were quorate, with summaries and key issues from individual meetings detailed below.

6.3 **Shropshire, Telford and Wrekin ICS Medicines safety group: 28 April 2022.**

6.31 Discussions within the group identifying recruitment and retention of staff is impacting on medication safety within the system leading to increases in medication related incidents. Main themes identified are:

- Time constraints with medication administration rounds
- Distractions/competing pressures during medication administration rounds, especially in the morning.
- High use of agency nurses and staffing groups with alternative training and experience and the movement of staff outside of their usual speciality/Ward location.
- Nursing staff being over familiar with the Medical Administration Record (MAR) or in-patient drug chart with a lack of attention to changes in treatment.
- Limitations within current systems to highlight critical medication and administration timings.
- Limitations with current training and validation relating to medication administration.

6.32 The need to focus on accurate and timely discharge summaries, supply of medication and relevant referrals to community teams for patients following discharge from SaTH into primary care and other secondary care organisations. Moving forward, Datix incidents are to be reported alongside newly developed NHS to NHS concern forms and will be discussed at future meetings if appropriate.

6.33 Robert Jones and Agnes Hunt (RJAH) detail a written paper that has been submitted within the trust for the use of Pharmacy Technicians to support drug administration at in-patient Ward level. Following discussions, it was identified that Shropshire Community Health Trust (SCHT) already support this within prisons but are unable to extend further due to staffing pressure with the system.

Within SaTH, it is felt that due to recruitment and retention of staff, it is unrealistic to support medication administration at Ward level currently.

6.34 National Patient Safety Alert – Inadvertent oral administration of potassium permanganate was discussed. SaTH and RJAH have completed the required actions and have decided to remove potassium permanganate from the organisations. SCHT are currently reviewing usage data to decide the potential to remove potassium permanganate from formulary or to introduce the required risk assessments and measures to mitigate risks of continued use.

6.35 Quarterly Themed incident reports:

SaTH

- Following the end to the supply disruption of Tinzaparin 3500units and 4500units and supply chain supplies are robust, SaTH are in the process of switching back from the temporary switch from enoxaparin (Arovi). Stock has been received into the organisation. A full relaunch including trust wide communications, adjustment to trust guidelines, removal of legacy stock of enoxaparin from Ward environments, and replenishment of tinzaparin at Ward/department level is in process.
  There is concern within the group that because other organisations within the ICS use enoxaparin as first line treatment that this will increase risk and potential delays to continued care following discharge from SaTH.
- Reported work related to controlled drug storage and high numbers of reported incidents linked to the overcrowding of controlled drug cabinets due to delays in removal of expired and/or no longer required controlled drugs.

SCHT.

- Reported incidents and concerns of missed doses of high-risk medications following discharge from SaTH into the community and to community hospital settings without required medications and incomplete discharge preparations.
- Due to recruitment and retention problems, there is a lack of allocated time for clinicians to cover required responsibilities and patient reviews.
- There are recruitment and retention of staff related pressures within the prison systems. Pharmacy staff have previously supported nursing teams however it is now impacting within pharmacy teams.
- Reports that during pharmacy monitoring it was identified that administration of medications were not being signed for, especially anticoagulants. Due to safety reasons, the drug chart is separated into sections, but this increased missed doses or missing signatures. The majority of incidents seem to be linked to temporary/agency staff.

RJAH.

- Report the use of VitalPac on handheld devices to set alerts for key medications including controlled drugs and Parkinson's medications.

- The introduction of a peer review straight after each drug round to check for signatures has had a significant impact and reduction in missed doses and missing signatures.

Severn Hospice.

- Reported incidents within the Severn hospice are mainly administration of medication incidents and due to services provided, NHS to NHS incidents relating to transfer of end-of-life patients.

6.36 Vaccination programmes including Covid-19, Influenza and routine Paediatric Immunisations.

- **COVID-19** – SCHT report the new Moderna vaccine has now become available and is being used in care homes and household settings but not within clinical settings. Reported incidents are low and mainly due to wastage of vials. Community pharmacy is now administering age ranges 5–11-year-olds with the low dose Pfizer vaccine.
- **Influenza** – SCHT report it was too early to report on influenza as the clinics have just finished from the previous financial year. All primary care practices should be in the process of ordering vaccines for the next season bud delivery dates will not be confirmed yet.
- **Routine Paediatric Immunisations** – SCHT report that there have been some incidents of duplicate doses. The trust has investigated and identified the paper-based patient consent form as the main factor in errors. The trust would like to move to electronic consent which would reduce errors, this will hopefully happen for the next school year.

6.4 **Shropshire, Telford and Wrekin ICS Medicines safety group 28 July 2022.**

6.41 Primary care network and primary care reporting. Contact is to be made to key stakeholders within the PCN and Primary care providers to report and represent into this group to include ratification of the OTC policy has been shared with the group.

6.42 Definitions of harm. To ensure standardisation of reporting, the group have discussed and agreed definitions of harm as described within the Datix national reporting system will be used and will be shared to all group members who do not use Datix within their organisations.

6.43 Admissions and Discharges related incidents. SaTH report a working group between SaTH and other key members within the ICS who will look at incidents related to admissions and discharges between organisations.

6.44 Quarterly Themed incident reports:

SaTH

- The current Self-Administration policy is being reviewed due to low uptake and identified high numbers of medication administration incidents. Advantages of self-administration of medications are well known including patient empowerment and compliance. The review of the policy will have a focus on critical medications including Parkinson's, epilepsy, and diabetes medications.

- There has been an identified increase of reported prescribing and administration errors relating to Gentamicin. Investigation has highlighted changes within microbiology advice on dosage following blood tests, the need for additional training on the prescribing and administration. Trust comms have been released in the form of a 1-minute-brief.
- There have been confusion and reported incidents relating to the change of artwork of Maintalyte IV fluids. Nursing staff have omitted treatment of Maintelyte due to “having potassium in the bag”. Maintelyte has always had potassium in the bag. Education, direction to the BNF and trust guidelines and trust comms in the form of a 1-minute-brief have been released.

Severn Hospice.

- Report issues obtaining supply of end-of-life medications from dispensing GP practices and community chemists who do not offer extended opening hours.

RJAH.

- Reported additional processes and education to reduce missed doses of medication including a post medicine administration round peer review of drug charts and education to ensure the correct coding is used on the drug chart when a dose is omitted including patient declining or doctor instruction.
- To ensure all details are completed on blood bottles and request forms for vancomycin levels to support analysis and return of results in a timely manner.

SCHT

- Reported that one of their clinical educator practice nurse will be supporting new starters with IV training during their inductions. SW to share more details once the process is established.

6.45 Vaccination programmes including Covid-19, Influenza and routine Paediatric Immunisations.

Covid-19/Influenza- SCHT report that winter planning around the autumn booster has been agreed. Work will now start to disseminate and link in with the Influenza. For the General population, there will be the option to combine Covid-19 booster with the annual flu at the same time. There may be inconsistencies within the community setting due to infrastructure and capacity issues.

6.46 Serious incidents.

The senior pharmaceutical advisor to the Shrewsbury, Telford and Wrekin ICS reported a serious incident involving the death of a child with epilepsy. An investigation has been started and has been raised as an NHS-to-NHS concern by SaTH to practice relating to dosage of prescribed medication. The advisor will update the group once the investigation is complete.

6.47 Valproate prescribing.

Following a PCN pharmacy meeting that identified some poor-quality assessments of women of childbearing age in particularly for women with

learning disabilities, the senior pharmaceutical advisor (STW) is making contact with Midlands Partnership foundation Trust and Royal Wolverhampton NHS Trust as main providers.

6.5 **Shropshire, Telford and Wrekin ICS Medicines safety group 27 October 2022.**

6.51 Medication Safety Group reporting.
Following discussions within the ICS system Quality Group, a proposed reporting template is to be shared for the Medication Safety Group combined report to be submitted.

6.52 National Medicines Safety Improvement programme – Opioids.
The Medicines Safety Lead for the West Midlands Academic Health Science network (WMAHSN) presented a power point presentation on the National Medicines Safety Improvement programme – Opioids reporting that the overarching aim of the Medicine Safety Improvement Programme is to reduce severe avoidable medicines related harm by 50% by March 2024. In order to achieve this overall aim, there will be a focus on improving care of people living with chronic pain by reducing harm from opioids.

It was discussed that the WMAHSN is hoping to host and support improvement workshops in December 2022 with an aim to bring together key stake holders from the region to plan a system wide approach to reduce harm.

It was highlighted that Shrewsbury, Telford and Wrekin are currently the worst region nationally regarding high dose opiate prescribing.

6.53 Quarterly Themed Incident Reports:

SaTH

- Reported that numbers of incidents remain steady for this review period with prescribing and administration related incidents being the highest reported categories. Ongoing work with high reporting Wards/departments are showing improvement.
- There has been an identified theme relating to the management of diabetes resulting in the development of a key stakeholder group to meet and discuss next steps.
- A new Self-Administration Policy has been drafted and is currently going through the approval process within the organisation. Once approved, a full launch of the policy to promote use is planned.
- The SaTH improvement hub are supporting clinical teams (with support from the MSO) to standardise and improve the management of drug trolleys within the trust. 5S methodology is being used to maximise value, cut unwarranted was and to standardise the layout of trolleys where appropriate.

RJAH.

- Key points from the report highlight the need to revisit alerts and key safety messages on a regular basis.
- A theme has been identified relating to storage of refrigerated medications not going straight into the fridge once delivered by pharmacy.

SCHT

- Numbers of incidents remain stable with most of the incidents in SCHT report are NHS to NHS concerns around transfer of care with most of errors due to communication issues.
- SCHT report that the trust is still having problems with ambient temperature storage however will soon be resolved with the implementation of air conditioning within medication storage locations.

Care homes

- Care homes are being encouraged to report incidents using the Ulysses data base rather than the purple card paper system. A web-based training package is to be rolled out mid to late November within 13 care homes.
- The medicines management care home team would be running a training event via SPIC to help with an identified theme of incidents relating to Morphine MR.

6.54 Vaccination programmes including Covid-19, Influenza and routine Paediatric Immunisations.

Covid-19 – SCHT report that September was the start of the Covid booster program and that the pharmacy technician leading on the service will provide an update in future medication safety meetings. There have been incorrect dosage incidents have been reported following a change in vaccine used. Additional training has been provided.
Influenza – No update.
Routine Paediatric Immunisations – SCHT report that a electronic patient consent system is being rolled out which should help reduce incidents regarding duplicated vaccinations.

6.55 Controlled drugs.
SCHT report that there are now some prison sites that have written position statements in regard to the use of gabapentin and pregabalin to help and guide clinicians as to when these drugs should be used and what information is shared with the prisoner. SCHT asked the group if this should also happen in primary care settings to prevent inappropriate initiation and use of these drugs. – The group agreed in principle with escalation to CDAO regional group for comment.

6.6 **Shropshire, Telford and Wrekin ICS Medicines safety group 23 Febuary 2023.**

6.61 The Medicines Safety Group combined report will now report directly into the ICS System Quality Group using the agreed template approved within the group.

6.62 Opioid reduction target update –
Following MEDSIP programme workshops held in December 2022, working groups in both primary care and secondary care have been developed to focus on the specific actions and recommendation to support appropriate management of patients on opioids.

Within secondary care, a group including pharmacists from SaTH and RJAH has been established with an aim to look at prescribing of opioids during attendance and quality of discharge letters following discharge from organisations.

6.63 DOAC target update – Recommendations from NHSE in 2022:

- Patients commencing new treatment for AF should be initiated on Edoxaban where it is clinically appropriate.
- Patients already prescribed a DOAC for the treatment of AF – commissioners should consider developing a local policy for patients currently prescribed apixaban, rivaroxaban and dabigatran to be switched to Edoxaban if clinically appropriate.
- Medicines Management Solutions (Clinical pharmacy service) which is part of NHSE procurement framework will be supporting GP practices to review the whole therapy requirements for AF.

6.64 Valproate prescribing target update – Recommendations from NHSE in 2022:

- Valproate targets are 100% of women of childbearing age prescribed valproate and on the valproate pregnancy prevention program database with recall system by August 2023.
- 100% of women of childbearing age prescribed valproate of an annual risk assessment form up to date by December 2024.
- Guidance produced in 2018 now includes men. Any male under the age of 55 are in danger of being infertile whilst taking on valproate.

There are 780 patients in Shrewsbury, Telford and Wrekin on valproate (men and women). The objective is to get as many patients off valproate as possible.

A working group including the Neurology Specialist Nurse from Royal Wolverhampton Hospital and a psychologist from Midlands Partnership Foundation Trust are currently identifying individual patients prescribed valproates for review, to validate databases and ensure risk assessments are completed.

A ARAF (Annual Risk Assessment form) form has been created with a list of questions which the specialist will go through with the patient to ensure the patient is absolutely clear about the risks of pregnancy. The patient should also be given a patient guide to take away. The specialist is asked to indicate that they have gone through each of these points and then the patients must do the same. The form is then be returned to the patients GP and the patients GP will upload it into the clinical system enabling the GP to confidently prescribe for that patient for the next year.

6.65 Quarterly Themed Incident Reports:

SaTH

- Detailed a gradual increase in reported incidents however there are no identified themes or concerns and notes that increases in incidents are within no harm/low harm categories.
- There is significant staffing and workload pressures identified as a contributing factor as well as the improving reporting culture within the organisation.
- The supply disruption for Alteplase has been extended to the whole of 2023.
- Medication shortages continue to be a problem within SaTH increasing pressure on procurement and operational pharmacy teams.
- Following high numbers of diabetes related incidents, a working group has been developed to identify root causes and required improvements.

- Work is ongoing to tackle omitted and delayed doses of medication within the organisation.
- Following a serious incident within the organisation, a training package to better understand prolonged QT intervals and interpretation of ECG's has been developed with an of offer to share the package within the group.

RJAH.

- Feedback on a moderate harm incident where a medication was administered pre surgery when it was clearly documented that the medication was to be omitted.
- Work is in development for a Parkinson's medication campaign including a missed dose audit and a launch of digital links to support good management.

SCHT

- Highlighted numbers of incidents with an identified theme of recruitment and retention of staff.
- A pharmacy omitted dose audit that reported that out of 22 omitted doses identified 80/85% of medications had been administered but not signed for on drug charts and that medications are missed due to multiple sections on the drug chart.
- Identified theme of incidents linked to locum prescribers resulting in additional induction training.
- The role of MSO has now been recruited and appointed to within the organisation.

Care homes

- Main trends of incidents were around medicine reconciliation and that the policy states that two members of trained staff should complete the process, however this is not always happening due to staffing levels.

6.66 Vaccination Programmes including Covid-19, Influenza and routine Paediatric Immunisations.

Covid-19 -RJAH has now stopped acting as a hub for vaccination. It will now be the responsibility of SCHT as the primary offer along with a few community pharmacies. **Influenza** – The Covid service will be looking to do dual vaccinations. However, as GPs are commissioned to run the influenza vaccine delivery this may result in contract changes as SCHT will be limited to what we can actually offer with regards to flu.

Routine Paediatric Immunisations –SCHT have now introduced an electronic consent with regards to vaccination within school age children. There has been 89% positive feedback from parents.

7.0 Focus in the future

7.1 Omitted and delayed doses of medication.

Omitted and delayed doses of medications can cause significant harm to patients and identified as the second largest cause of medication incidents reported within England and Wales.

Due to the current paper-based prescribing and medication administration systems it is difficult to get accurate data relating to the number and severity of omitted and delayed doses within the organisation. Incidents do get reported onto the Datix incident reporting system with follow on investigation however, this does not give a true picture of the number and severity of all omitted and delayed doses.

Work continues including an initial audit of Ward 31 – Surgical Admissions Unit (SAU) at RSH to identify all omitted and delayed doses over the review period of the audit and then to formulate an action plan. This work is being supported by the improvement hub, clinical teams from Ward 31 and the MSO. Identified improvements will be implemented trust wide where appropriate.

It has been identified that the implementation of an Electronic Prescribing and Medication Administration (EPMA) system will reduce numbers of omitted and delayed doses of medication with ability to set alerts within the system that will identify when medications including critical medications and medications with complex administration regimes are due for administration. An EPMA system will also provide accurate and live data on prescribing and administration data including omitted and delayed doses that can be used to identify areas of concern and support investigation and improvements.

7.2 Self-administration of medication.

It has been identified that self-administration of medications within SaTH is not widely established and when it is used, required assessment, continued review and documentation is not completed.

Benefits of self-administration of medication are well known including:

- To promote and maintain patient's independence in the management of their medicines prior to discharge from hospital empowering them to managing their own care and practice administering their medication under supervision.
- To support and promote compliance of complex and specialised medication regimes.
- To prevent patients from becoming de-skilled in medicines management and/or fearful of managing their medications post-discharge.
- To improve concordance to maximise the benefits gained by patients from prescribed medicines and therefore reducing re-admission due to non-concordance.
- To promote patient centred care leading to patient satisfaction.
- To free up time for nursing staff to focus on other clinical duties.

Following a review of the current policy and feedback from nursing teams, it was decided that a new policy would be developed with an aim to better enable self-administration and support better management from a nursing perspective.

The policy has been approved for use by the Safe Medicines Practice group (SMPG) and is available for use within the organisation. The policy was presented at divisional governance and nursing meetings to promote use.

Work is ongoing with support from the improvement hub to promote the use of the policy including a trial to add assessment for self-administration of patients as part of the clerking and admission to Ward process for all patients that present.

Work includes an initial audit to identify current numbers of patients appropriate for self-administration and to identify infrastructure and training needs to better enable the process.

7.3 Controlled drug incident investigation.

To ensure controlled drug related incidents are reported, investigated, and completed appropriately within required timeframes, the following steps have been completed:

- Guidance to support investigation including how to report, investigate and controlled drug related incidents.
- Adjustments within the Datix system to prompt the reporter to contact pharmacy immediately following identification of error.
- Ensure responsible pharmacists have required access on the Datix system to support investigation.
- Support for the clinical teams to identify the responsible pharmacist for support and guidance for the investigation and to ensure they are included as a Datix investigator.
- A review of the current controlled drug investigation template to ensure local and national standards are met.

Future work will include the development of a trust Controlled Drugs policy to support good management of controlled drugs including sections on organisational roles and responsibilities, ordering, storage, prescribing and administration, destruction and investigation following incidents of controlled drugs.

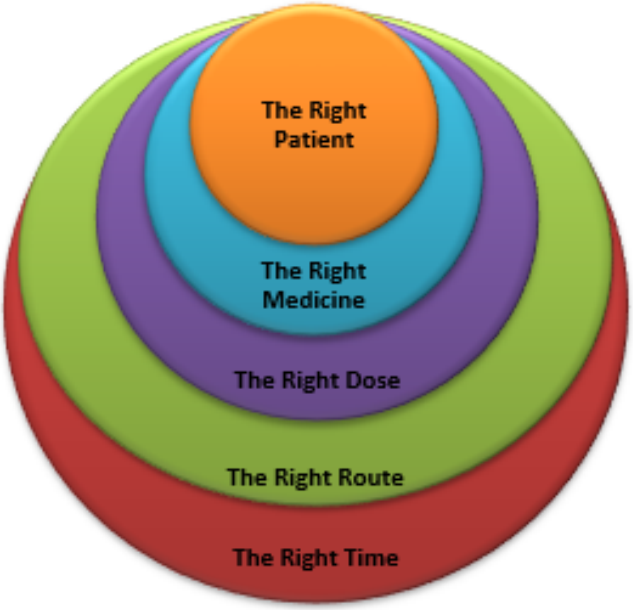
7.4 The “5 rights” of medication administration.

Following discussion in the Shropshire, Telford and Wrekin ICS Medication Safety group around medication administration incidents it was decided that a guide would be drafted to be displayed in medication preparation areas and drugs trolleys. The guide has been submitted to the group for approval and displayed below:

Shropshire, Telford & Wrekin
Integrated Care System

NHS
The Shrewsbury and Telford Hospital
NHS Trust

The Five Rights of Medicines Safety



1. Right patient

- Check the name on the prescription and wristband.
- Ideally, use 2 or more identifiers and ask the patient to identify themselves.

2. Right medication

- Check the name of the medication, brand names should be avoided.
- Check the expiry date.
- Check the prescription.
- Make sure medications, especially antibiotics, are reviewed regularly.

3. Right dose

- Check the prescription.
- Confirm the appropriateness of the dose using the BNF or local guidelines.
- If necessary, calculate the dose and have another nurse calculate the dose as well.

4. Right route

- Again, check the order and appropriateness of the route prescribed.
- Confirm that the patient can take or receive the medication by the ordered route.

5. Right time

- Check the frequency of the prescribed medication.
- Double-check that you are giving the prescribed at the correct time.
- Confirm when the last dose was given

Resources to support medicines safety at Shrewsbury and Telford NHS Trust:

Access Via SaTH intranet to:

Medusa = IV/IM/SC guidance
User name riahstaff Password seacole08

BNF = Specific medicine information

eMC = Detailed medicines information

Antibiotic guidance = Specific antimicrobial guidance use within SaTH

SaTH Formulary = For awareness of medicines supported for use within the Trust

Medication Safety Officer =

Andy Harris.

Email: andrew.harris24@nhs.net

Ext 3030

7.5 Diabetes – Review of the Inpatient Diabetic Pathway and Discharge processes.

Following high numbers of incidents relating to diabetes care and recommendations resulting from serious incident investigation, a request from the medical director to form a working group to identify issues and to formulate an improvement plan.

A team led by the diabetes team supported by the improvement hub and other key stakeholder has been developed. A recent meeting on the 30 January 2023 with representation from the diabetes team, division heads of nursing and operational leads, pharmacy, MSO, blood sciences, biochemistry and the improvement hub met to discuss and agree the scope of work:

- A review and update of the in-patient diabetic pathway
- A review of diabetes related training within the trust and to add it to the LMS system.
- Re-introduction to various diabetes related audits within the trust including a GRIFT review.
- Feedback from ongoing meetings with external organisation's relating to discharge and follow-on referrals.
- On-going work relating to omitted doses and delayed doses of medication.
- The integration of the new Self-administration of medication policy within the trust to empower diabetes patients to manage their own treatment.

Work is ongoing and updates will be led by divisional leads to relevant groups within the trust.

Andy Harris
Medication Safety Officer
April 2023

Appendix 1.

Executive summary.

The aim of this report is to provide a summary of recent observational shifts completed on Ward 33 SAU (Surgical Admissions Unit) with an objective to getting a better understanding of current practice, and to identify immediate and longer-term remediable actions.

Observational shifts have been identified as part of on-going work to investigate high numbers of medication administration incidents. Discussions with nursing teams, Ward managers, matrons and the medication safety officer have identified multiple factors that are contributing to an identified increase in medication administration related incidents includes training, infrastructure and current systems and processes.

Open and honest reflection, extensive investigation within the clinical divisions supported by patient safety and governance teams is to be recognised as one of the driving forces to identify trends and learning from incidents to increase safety and care for our patients.

The report does not report on individual drug rounds observed but summarises general differences in individual practice, noncompliance's to current policy and challenges current processes for further discussion and concludes with recommendations and required next steps.

I wish to thank individuals and the collective team for their open and honest accounts and understanding of current practice. Each day, I witnessed great individual and teams working to provide care and compassion to patients. It is remarkable that under the continued pressure that the team face they are so motivated to continually care for the patients to the level they do.

Introduction.

Ward 33 Surgical Admissions Unit at RSH was selected as the Ward for observational shifts due to reporting high numbers of administration related incidents. Being a surgical admissions Ward, Ward 33 accepts high numbers of unpredictable and unexpected admissions of patients who are often acutely unwell. These admissions are rarely planned so identifying patients pre-existing conditions and pre-admission medication is often secondary to the presenting complaint. Coupled with staffing pressures, insufficient systems in place and the lack of capacity within the hospital to transfer patients following initial assessment and diagnosis to appropriate speciality Wards increases the pressure and chance of risk and incidents.

The observation shifts took place from the 20/6/22 to 25/6/22. The early morning round was observed with different nurses observed each day. The morning drug round is completed as part of the night shift and generally starts around 6am.

The Ward is split into 5 bays with a named nurse responsible for each bay. The drug administration round starts with each nurse in the bay reviewing in-patient drug charts to identify patients who require controlled drugs and I.V route medication (require second checks). The nurses then work between themselves to prepare and dispense all of the medication for patients who require administration of these groups of drugs. Once prepared, these drugs are administered to patients.

Once this is completed nurses then review charts for patients who are prescribed oral medications. Stock of these medications are sourced by three main routes.

1. Patient specific medication stored in the patient locker.
2. Hospital Ward stock via the drug trolleys
3. Hospital Ward stock via the treatment room.

All administered doses are signed for by the nurse. It is understood that any doses that are not administered are discussed in “handover” as part of shift change.

Observational shifts.

I have broken down observations into identified key areas.

Drug trolley.

The purpose of a drug trolley is to store medication that is routinely used on the Ward and meets the compliance criteria for the storage of drugs. When used appropriately, they are a secure, efficient, and convenient system that supports safe administration of medication. They provide a good working station for the dispensing of simple medications and a station to securely store prescription charts and resources used to support safe administration such as the BNF.

Observations of the use of drug trolleys.

1. Each drug trolley was managed differently and not standardised. Each trolley had a different range of medication and was stored differently. There was no identified process for the replenishment and top up of trolleys and no stock list.
2. Drug trolleys were not stocked up at the start of the drug round. On multiple occasions routine medications were not available in the trolley. There was no identified process for when trolleys were assessed and contented checked for expired stock.
3. It would be good practice to have resources available to support the safe administration of medication such as the BNF available on the drug trolley.
4. One of the main advantages of drug trolley is to reduce time and footfall as part of drug administration. It was observed that the trolleys were kept tethered to walls and away from patient bays. Nurses were observed dispensing medication from trolleys but then leaving the trolleys (unlocked) away from the bays and patients and then walking to administer. When questioned, nurses said that taking drug trolleys was stopped during covid-19 restrictions and the process hasn’t been reviewed.
5. Trolleys are left unlocked and open and left unattended.

Patient bedside medication lockers.

The purpose of patient lockers is to provide secure storage for patient specific medication that has been dispensed for single patient use. When used appropriately, lockers provide a secure, efficient and convenient system that supports safe administration of patient specific medication and preparation of patient discharge. Patient lockers can support self-administration of medication for appropriately assessed patients.

Observations of the use of patient bedside medication lockers.

There are two different styles of patient lockers used on Ward 33 SAU.

- Traditional key and barrel lock lockers that require a key to open/lock
- Pin-code combination locked lockers that are secured using a programmable and changeable 4-digit code.

1. Most patient bedside medication lockers were unlocked and unsecure on inspection during observation rounds.
2. There is not a good understanding of how to change the pin-code combination code to support self-administration of medication by patients.
3. There were no identified systems in place to manage the keys for the lockers or availability of keys to support self-administration of medication by appropriately assessed patients.

Treatment room.

The purpose of the treatment room is to be the designated storage location for the majority medication stock for the Ward/department. It is the main location used in the preparation of medication requiring mixing and/or dilution. Standard for the storage of medication state that medication must be stored within locked cupboards and within locked rooms (with exceptions). Treatment rooms provide this level of security when used appropriately. Management and monitoring of temperatures is managed to ensure adherence to product license and national standards. Stock of medications within treatment rooms are generally managed by pharmacy via weekly top ups and replenishment of stock is delivered to the treatment room to be put away.

Observations of the use of the treatment room.

1. On multiple occasions/days the drug cupboards were open and unlocked without any nurses to provide oversight.
2. The Traka key management system is broken so there is limited security and traceability of keys.
3. The weekly stock delivery of drugs was delivered but not put away. Nurses were taking stock directly from the delivery box rather than putting it away.
4. Prepared I.V medication was left unattended in the treatment room.

Process of drug administration.

It was assumed that all nurses observed had completed and understood relevant training in the safe preparation and administration of medication. Observation was done at a distance as much as possible to ensure a good reflection of current practice was seen. If any clear risk was identified, then intervention would have been actioned at the point of observation.

Observation of the process of preparing and administration of medication.

1. There was no standardisation in the sourcing of medication for administration. Two nurses used PODs as the primary source and used stock from the trolley as secondary source. The other three observations identified stock from the trolley as primary, treatment room stock as secondary and then pods as the last source.
2. All patients I.V medication was prepared at the start of the administration round. The preparation of I.V medication was only observed once but multiple drugs were prepared and left unattended in the treatment room
3. Drug trolleys were left tethered to the walls away from patient bays. One of the main advantages of drug trolleys is that they are portable and can be taken into patient bays to reduce footfall and streamline the process of administration. Trolleys were also left unlocked posing a security risk.

4. There is no standardisation in the process of introduction to patients. Two nurses were observed introducing themselves and the plan to administer before the preparation of doses /administration. Other nurses prepared medications first and then took them to the patient and introduced themselves. This caused additional footfall and time if the patient required “when required” medication and confusion of patients.
5. Two patients on the same day did not have identity wrist bands on due to a doctor cutting them off (complicated Venflon application). Both patients had medications administered following verbal confirmation of identity.
6. Drug administration is broken down into a two-stage process rather than individual patients. All patients I.Vs and Controlled drugs are prepared and administered followed by a second round of oral medications. Following discussions with nurses, this is because controlled drugs/I.Vs require second person check and is the only way to do it due to staffing pressures.
7. A lack of knowledge and understanding of available resources was observed. A nurse was witnessed omitting a dose because they did not understand the medication prescribed on the drug chart. This was a combination of poor prescribing but also a lack of knowledge as the BNF would have provided appropriate information to allow administration. Unable to challenge prescribing at the time due to the time of day and lack of doctor cover.
8. Prompting was required on multiple occasions for different nurses for the appropriate documentation of omitted doses was needed.
9. A patient was self-administering medication and the documentation was correctly documented on the in-patient drug chart. However, no assessment and documentation were found in the patient notes.
10. One patient was prescribed 10mg Ramipril but the only available dose on the Ward is 1.25mg. This would have required 8 capsules to obtain the correct dose. There are no Wards within the hospital site that stocked an appropriate dose.
11. There was a high number of prescriptions for paracetamol that were incorrectly prescribed as PO/I.V route. This was by multiple doctors.
12. Observation of a nurse challenging a doctor to prescribe a medication highlighted some of the frustrations and lack of knowledge of roles and responsibilities. There is not a good understanding from nurses of what doctor’s responsibilities are about also and more concerning is there is a lack of understanding from doctors on their responsibilities and the impact of patients not receiving treatment due to invalid prescriptions.

Discussions with nursing staff.

The aim of the observation shifts was to better understand current drug administration process and to avoid nursing staff doing administration differently because they were being watched. If there were obvious risk or chance of error, intervention at that point but generally, observations were done from a distance and observations noted. Once the administration round had been completed, I asked nurses their opinions on the drug administration process, their opinions on why incidents happen and recommendations for improving the process.

Feedback from discussions with nursing staff.

1. There is a change and a reduction of support from Microbiology in the prescribing and administration of Gentamicin and Vancomycin. Historically, Microbiology would advise on changes and need to omit doses but now the advice is to “Refer to the antibiotic guidelines for future dosing”.

2. There is a reluctance by doctors to prescribe regular medications onto in-patient drug charts. Doctors are bleeped and approached when on the Ward but often refuse stating its not their responsibility.
3. There is a feeling that international nurses have a different perception and acknowledgment of pain and less likely to administer “when required” analgesia.
4. It was identified that there is no training for the administration of medication beyond the initial induction training within the trust.
5. The high number of agency nurses mean a lack of consistency within the team. Agency nurses are not able to perform the same level of tasks as substantial nursing staff such as access to controlled drug keys.

Recommendations from observational shifts of the administration of medication.

This report aims to highlight improvements for the safe administration of medication. It does not focus on all the good practice and great teamwork observed. All recommendations are based on observations by the Medication Safety Officer who does not have a good understanding of consequences of recommended changes on other aspects of workload pressures and services.

Recommendations are categorised into key areas.

Drug trolley.

1. Drug trolleys need to be standardised with the standardised stock and layout.
2. A standardised process for the replenishment and daily checking of drug trolleys is needed.
3. Drug trolleys should have resources to support the safe administration of medication such as the BNF/Medusa. Ideally, these should be electronic.
4. Drug trolleys should be taken into patient bays are part of the drug administration round.
5. Drug trolleys must be locked when left unattended. This supports recommendation 4 as trolleys will be in the patient bay.

Patient bedside medication lockers.

1. All patient bedside medication lockers must be locked when not in use. Patients who have been assessed and are self-medicating should be supplied with a key or pin code to support self-administration but still provide the ability to secure medications appropriately.
2. Traditional key/barrel lock lockers need to be replaced with pin code combination lockers to provide standardisation.
3. Training and guidance is needed to support nursing staff change the combinations on patient bedside medication lockers.
4. Until all medication lockers are pin-code combination lockers, a system is required to managed keys and availability of keys for patients in support of self-administration.

Treatment room.

1. Medication storage cupboards may be locked and secure when not in use. No cupboards were identified as being broken but any broken locks/cupboards are to be reported immediately to estates.
2. The Traka key management system is the approved system to manage medication storage cupboard keys. Appropriate action has been put in place to mitigate risk.

The updated M Touch series cupboard is the recommended cabinet and is to replace the current Traka 21 cabinet.

3. Stock medication is to be put away as soon as possible to meet standards set in the medicines code.
4. Prepared I.V medications are not to be left unattended in any circumstances. I.V medications are to be prepared and administered in one process.

Process of drug administration.

1. The sourcing of medication for administration needs to be standardised. Initial thoughts are for Ward stock to be used as primary source of medication to minimise waste and to avoid the rundown of patient specific medications to support patient discharge.
2. It would be good practice for administration of medication should be done on a patient-by-patient basis rather than split into different route administration rounds. Staffing structure and pressures do not currently allow for this. A possible option could be that an appropriate individual could be assigned as designated second checker with the responsibility to perform second check for controlled drug dispensing and I.V preparation.
3. Drug trolleys to be taken into patient bays to support drug administration and reduce footfall and increase security of medication due to unlocked and unattended drug trolleys.
4. A standardised process for introduction to the patient and identification of “when required” medications is needed. From observations, good practice was observed when nurses introduced themselves explaining their purpose of administration and questions relating to “when required” medications at the start of the process. It gave patients time to compose themselves (wake up and reposition) and reduces process time due the identification of a “when required” dose is required or not at the start of the process.
5. All patients must have an identify wrist band on. It is used to confirm patient details and also flags any documented allergies. If a patient has not got an identity wrist band, it must be actioned immediately.
6. Training, communications, and availability of appropriate resources to support the safe administration of medication is required. These include the BNF and Medusa. Electronic and paper-based versions are freely available however electronic versions are preferred.
7. A robust process needs to be enforced for nursing staff to escalate poor prescribing that is fully supported and embraced by prescribers.
8. Clear responsibility and structure is needed to support the prescribing of medication. Currently, it is difficult to identify the appropriate doctor/prescriber to prescribe medication with many nurses complaining of doctors not prescribing because it’s not their responsibility.
9. Access and training for systems to support prescribing of medications. This includes access to summary care records (SCRs) for patients.
10. Appropriate recording for the reasons of an omitted dose/medication needs to be embedded.
11. Appropriate assessment and documentation are required as part of the process to identify patients’ ability to self-administer prescribed medication.
12. Continual review of Ward stock is required to ensure appropriate medication is available to administer for the patients cared for. This is challenging due to current pressures and that patients are often admitted to Wards outside of required speciality. Staff are to be aware of appropriate pathways to source medications not available.

13. Medication needs to be prescribed following local and national standards. This includes prescribing medication to be administered via a single route. It is not appropriate to prescribe medications with two potential routes of administration.

Discussions with nursing staff.

Once the observed drug administration round had finished, a short debrief was given to the nurse about identified good practice and any immediate recommendations, and/or advice to support safe administration. It was also a good opportunity to have informal discussions relating administration of medication and thoughts on current process, previous experiences outside of SaTH, and ideas to improve. This proved to be invaluable in getting a good insight into how nurses feel about the process and challenges faced.

Pharmacy medicines management service.

There needs to be clear understanding of the current service provided by pharmacy designed to promote and support good medicines management. There is a feeling at Ward/department level that the pharmacy medicines management team review all drug charts daily and will challenge poor prescribing and incorrect dosing/use of medication. Due to pharmacy staffing pressures, this is not happening and there should not be a reliance that challenges of poor prescribing is being managed. Nurses will always have a responsibility to challenge/question any concerns.

There is a need to develop the current medication management service provided by pharmacy. Current staffing pressures do not currently allow for this but a full review on the service and which Wards/departments receive the service is recommended.

Enable dedicated prescribing and medication review time.

There is a need to support prescribers within current roles/structure/responsibilities to prescribe, adjust and cancel medications or to introduce a role of a dedicated prescriber for this responsibility. A focus on medicines reconciliation and discharge planning is required as well ensuring continuing treatment of existing conditions such as Parkinson's and diabetes. All prescribers should have access to patient's electronic summary care records to identify patient's pre-admission medications as part of the medicine's reconciliation process.

Transfer of patients from emergency departments.

There is a need to develop systems to better transfer patient from ED. Admissions via ED are usually unplanned and patients are usually acutely unwell. Systems to identify medications that have been prescribed and administered during attendance to ED are not always communicated that have led to incidents. Pre-existing conditions are not always identified and/or treated for in ED and this must be a priority as part of the transfer onto an in-patient Ward.

Self-administration of medication.

There is a need to enable self-administration of medication by patients and carers. This will empower patients to continue management of their medications during admission, provide opportunity to assess patient's compliance in the management of medication and prepare them for discharge and free up time for nursing staff for other duties. Self-administration is also recommended for patients with complex dosage regimes such as Parkinson's and Diabetes.

Develop guidance to support safe administration of medication.

There is a need to embed good practice of safe administration of medication. Simple guides that can be displayed in drug trolleys and treatment rooms as an aide memoir to support the safe administration of medication in the locations where it happens.

Next steps.

Following the observational shifts, it has been identified that additional steps are required to better understand non-standardised processes in other Ward/department locations. It was also identified that other drug administration rounds need to be observed to identify other stresses in the process and factors that impact on the drug administration round. Below is a summary of required next steps.

1. Observe the preparation of I.V medications as part of the medication administration round.
2. Observe additional medication administration rounds at other busy times (lunchtime rounds) to better understand process and risks/pressures.
3. Observe medication administration rounds on other Wards/departments to identify differences in process and structure.
4. To review/adjust the current self-administration policy to enable patients/carers to manage medications.
5. Audit both hospital sites to identify current patient lockers and to develop an action plan to support self-administration of medication.
6. Develop a SOP to enable the setting of pin-codes on patient bedside lockers to support self-administration.
7. Continue and develop relationships with the clinical teams to support investigation and to embed learning from incidents.
8. Engage with training leads to review and introduce appropriate training packages to support safe administration of medication.
9. Develop simple posters/aide memoirs that can be displayed in medication prep/administration areas to support safe administration.
10. Submit report to relevant stakeholders for review and approval.