

# RISK ASSESSMENT FORM

To be completed for all newly identified risks

For further guidance on completing this form please refer to [Guidelines for Completing a Risk Assessment Form](#) (available on the Trust's intranet) or contact your directorate Risk Lead

Department / Directorate	<p>Pharmacy, Diabetes and Endocrinology, All inpatient ward areas across STHNHSFT</p> <p><b>Delayed administration of subcutaneous insulin during inpatient admissions.</b></p> <p>Insulin is cited as one of the medicines most commonly associated with incidents leading to severe harm or death<sup>1</sup>. NaDia identified that one-third of diabetic patients admitted to hospital will be treated with insulin, and 1 in 4 of those insulin-treated patients will experience significant hyperglycaemia or hypoglycaemia<sup>2</sup>. An analysis of insulin reports by NRLS showed 15,227 incidents (17 fatal/severe, 972 moderate harm). The top 3 errors accounting for 60% were: Wrong dose, strength, frequency (26%), omitted/delayed medicine (20%), and wrong insulin product (14%). Incidents occurred at all stages of prescribing, supply and administration, but 61% occurred during administration. Incorrect dosing, omission and delay were commonly reported from an inpatient environment where insulin is administered by health care staff.</p> <p>Based upon the national averages for diabetes incidents, and trust size of 2000 beds it is estimated that 1 patient will have a major hypoglycaemic event, requiring treatment with IV glucose or glucagon per day within STHNHSFT.</p>
Description of risk	<p>The NHS recognises that patients are well placed to continue their own diabetes care in hospital if it is feasible and safe to do so. NICE Quality Standard (Diabetes in adults) states that hospital in-patients should be given the choice to self monitor and manage their own insulin.</p> <p>STHNHSFT has met the NPSA requirement to have a policy for self administration in place. <a href="http://www.sth.nhs.uk/STHcontDocs/STH_Pol/ClinicalGovernance/Self-AdministrationPolicy.doc">http://www.sth.nhs.uk/STHcontDocs/STH_Pol/ClinicalGovernance/Self-AdministrationPolicy.doc</a>.</p> <p>However the area that it is proving more difficult to meet is the requirement to have 'systems in place to enable hospitalised patient to self administer'. The current policy facilitates the self administration of medication and insulin; however there are significant barriers to implementation, including inappropriate/inadequate storage facilities on the wards and insufficient pharmacy service to ward areas.</p> <p><i>Inappropriate storage facilities for storage of insulin for self administration</i></p> <p>To enable self-administration of insulin, the current insulin vial, pen or cartridge must be stored in a locked receptacle approved by pharmacy, which only contains insulin for that patient, to which the patient holds the key. Throughout the trust there are various different patient lockers styles in use. In some ward areas the patient lockers are not suitable for storage of insulin/ medication for self-administration because;</p>

Existing controls in place when risk was identified	<ul style="list-style-type: none"> <li>• Cannot be locked- cabinet only</li> <li>• Are not individually coded/keyed locks</li> <li>• <u>Contain other medication as part of the Dispensing for Discharge scheme. It is only appropriate to store insulin with these medicines if full self administration is in place</u></li> <li>• Contain individual named patient medication for nurse administration to the patient (non DfD ward)</li> </ul> <p>Where individual lockers are not available, medicines including insulin will be stored in a locked cabinet or medicines trolley accessed by nursing staff. This presents other risks to the patients including picking errors, delayed doses. It has previously been agreed that to formalise the practice of allowing patients to keep the insulin amongst their personal items (unlocked, but out of sight) is not appropriate and all medication must be securely stored.</p> <p><b>Summary of risk</b> Patients are at risk of preventable hypoglycaemic or hyperglycaemic events due to lack of access to insulin in a timely manner. Patients are reliant upon nurses to provide insulin at the correct time. Current medication storage facilities do not permit patients to retain possession of their insulin.</p> <p>Current practice includes adherence to the policy, whereby the insulin is taken from the patients possession and stored in a trust agreed locker, fridge, medicine trolley, and returned to the patient on request for administration.</p> <p>There are anecdotal reports of patients not wishing to hand over the responsibility for the insulin to ward staff, and keeping possession personally.</p>		
	Initial Risk Score i.e. with existing controls in place		
		Consequence (1-5)	2
		Likelihood (1-5)	4
		Risk Score (1 – 25)	8
Action Plan to reduce the risk to an acceptable level			
Description of actions	Cost	Responsibility (Job title)	Completion Date
Register risk on DATIX (for all risks > 3)	nil	N. Thomas (Governance Lead)	October 2014
Undertake option appraisal of medication storage options suitable for self administration of insulin	nil	S Kavanagh (Pharmacist)	September 2014
Submit options appraisal to MSC for review	nil	S Kavanagh (Pharmacist)	Septemebr 2014
Agree on preferred option. Review and agree on source of funding for delivering preferred option	nil	tbc	
Submit business case if required to (CIT)	nil	tbc	
Source the preferred item from the options appraisal Will need to gain assistance from supplies as trust wide purchase		Supplies and Procurement	
Review and update of self administration policy to include details of preferred option		N. Thomas (Governance Lead)	

Review and update diabetes monitoring chart and prescription to include documentation of self-administration status	nil	S.Kavanagh (Pharmacist) F.Creagh (Consultant)	
Training to pharmacy and ward based staff about self administration policy with regards to insulin. <ul style="list-style-type: none"> <li>Advice/training to enable appropriate assessment of the insulin product by nursing staff in areas without pharmacy cover (see DfD training policy)</li> <li>Storage requirements</li> <li>Documentation requirements</li> </ul>		S.Kavangh (Pharmacist) C.Nelson (DSN) F.Creagh (Consultant) N. Thomas (Governance lead)	
Update e-learning for self-administration (update slides)	nil	N.Thomas (Governance Lead)	
Implement preferred option trust wide			
Target Risk Score i.e. after <b>full</b> implementation of action plan	Consequence (1-5)	2	
	Likelihood (1-5)	2	
	Risk Score (1 – 25)	4	
	Date for completion		
Assessment undertaken by: Name	Job title		
Lead: Sallianne Kavanagh	Lead Pharmacist- Diabetes and Endocrinology		
Date of assessment	14 <sup>th</sup> May 2014	Date of next review	November 2014

References:

- 1) National patient Safety Agency (NPSA) publishes 'safety in doses: medication safety incidents in the NHS' (2007).
- 2) NaDIA
- 3) national Reporting and Learning service between 2003 and 2009

## Options Appraisal

Options available for storage of insulin products to facilitate self administration of insulin trust wide at STHNHSFT

Due to the disparity of ward cover and systems in place it is ideal that a single model approach is taken to ensure consistent service to patients with diabetes across the trust. The systems should consider a number of factors including

- Security
  - Secured to wall
  - Portable
    - Tethered product
      - But not a ligature risk
    - Un-tethered
  - Key locked, code locks
- Infection control
  - Easy to clean with standard procedures for high touch items
  - Unlikely to degrade product with frequent cleaning
- Suitable for use in all areas
  - Size
  - One receptacle per bed space or a few per ward stored in agreed area
- Nurse accessibility
  - Available at all bedsides as standard
  - If portable or small product- can be stored on ward in easily accessible area
  - Willingness and ability to provide patient with the agreed receptacle
    - If item stored at equipment library, although available, may not be accessed due to difficulties in access
- Patient accessibility
  - Poor mobility
  - Neuropathy
  - Poor eye sights



### Cost considerations


Depending upon the preferred option the cost will be variable.




Some options will require a few storage devices/boxes per ward to provide equitable access across the trusts. This is based upon average number of patients prescribed insulin on a 28 bed ward being 2- although this number does vary depending upon speciality. Other options would require the device/box being added to each bed space, and this will also incur estate costs.

This options appraisal has been undertaken as part of the storage of insulin risk assessment; however the principals of safe storage do apply to other medications (LMWH) that are specifically allowed to be self-administered on all wards as per the self-administration policy.

Method Of Storage	Advantages	Disadvantages	Cost	Additional comments
Utilisation of existing bedside locker	<p>Already located in position agreed as suitable for the ward population.</p> <p>Meet infection control standards.</p> <p>No acquisition cost dependent upon number of ward areas that have/require bedside lockers.</p>	<p>Already used for storage of other medications- therefore not suitable for areas not practicing dispensing for discharge and full self administration.</p> <p>Lockers on many wards will need the locks updating to ensure every locker is a different key code.</p> <p>Not all wards have suitable medication lockers at the bedside.</p> <p>Keys- risk of loss</p>	nil	<p>Not appropriate as one system cannot be applied to all areas of the Trust. Some wards are already using the lockers for storage of medication.</p>
Additional wall locker mounted added to existing system (Bristol Maid)	<p>Meet infection control standards.</p> <p>Secure.</p> <p>Accessible for patient</p> <p>Accessible for nurse to provide for patient.</p> <p>Cannot be easily removed from the ward</p> <p>Lots of different sizes available- could choose an option suitable for the specific ward space</p>	<p>High acquisition costs.</p> <p>Keys- risk of loss.</p> <p>Space- not all wards will have space for 2<sup>nd</sup> lockers</p>	<p>£43 per locker</p> <p>(£5000 per 28 bed ward)</p>	<p>Page 80 of current Bristol Maid catalogue.</p> <p>SAC/213/s</p> <p>210mmx155mmx315mm-side opening</p>
Additional bedside cabinet with integral drugs locker	<p>Meet infection control standards.</p> <p>Secure.</p> <p>Accessible for patient</p>	<p>High acquisition costs.</p> <p>Keys- risk of loss.</p> <p>Space- not all wards will have space for 2<sup>nd</sup></p>	<p>£200 per locker</p> <p>(average of 2 per ward £400)</p>	

	Accessible for nurse to provide for patient. Cannot be easily removed from the ward	lockers- either per bedside, or in store rooms for provision to patients when needed		
<p>Large tethered cashier box (10cm, 28cm, 20cm).</p> <p><a href="http://www.amazon.co.uk/Masterlock-MLK7141D-Cash-Security-Cable/dp/B002ONB48S">http://www.amazon.co.uk/Masterlock-MLK7141D-Cash-Security-Cable/dp/B002ONB48S</a></p> 	Secured to area near patient bedside- not easily transportable. Meet infection control requirements. Secure- keeps product separate for individual patients.	Ligature risk Not all lockers/bedside space have a suitable place to tether. Large box. Not all bed sides or wards can accommodate the size of unit. Need a larger area on the ward for storing unit when not in use. Keys- risk of loss	£35 per box  (average 2 per ward, £70)	Trialled as a pilot at STH (RH2). Worked on pilot ward but not suitable for all wards (see disadvantages section) Pilot very patient driven- giving the patient access to the box. This is the system being utilised at Bradford- one ward (Pilot)
<p>Small cashier box</p> 	Small enough to fit inside patients existing personal belonging lockers (out of obvious sight). Meet infection control requirements. Low acquisition costs Commercially accessible product- easily replaced. Secure- keeps product separate for individual patients.	Not secured or locked away- potential to be removed/lost from ward. Keys – risk of loss Patient may not be given access to a box despite availability	£ 12 per box  (average 2 per ward. £25)	
Lockmed bags	Small enough to fit inside patients existing	Does not meet infection control requirements.	(£35 per bag). Average 2 per ward	

<a href="http://www.lockmed.com">http://www.lockmed.com</a> 	<p>personal belonging lockers (out of obvious sight). Secure- keeps product separate for individual patients.</p>	<p>High acquisition costs Limited options for supply Patient may not be given access to a box despite availability</p>	<p>£70)</p>	
<p>Patients responsibility to hold amongst personal possessions</p>	<p>Accessible to all patients in all areas. No acquisition costs</p>	<p>No means of securing the product. Risk of insulin accidentally or purposefully taken by an unauthorised individual.</p>	<p>nil</p>	
<p>Ward trolley/locker Nurse to hold and give on request</p>	<p>Secure Meets infection control requirements</p>	<p>Disparity in accessibility on different wards (variety of systems used across the trust) Risk of picking errors if stored with other patients products. Risk of insulin not been given to patient in a timely manner with consequent risk of hypoglycaemic and hyperglycaemic events. Does not enable the true benefits of self administration.</p>	<p>nil</p>	
<p>Metal storage boxes- with top handle (Bristol Maid) Page 112 of current Distinctive Medical catalogue.</p>	<p>Meets infection control requirements Secure construction (aluminium riveted construction). Single point locking with CAM lock</p>	<p>Not secured or locked away- potential to be removed/lost from ward. Keys – risk of loss Patient may not be given access to a box despite availability</p>	<p>Medium £64 per box Large £66 per box  Average 2 per ward (£126- £132)</p>	<p>Page 83 of current Bristol maid catalogue.  Medium- 300mmx200mmx150mm Large- 400mmx200mmx150mm</p>

	<p>Light weight- portable if needed. Available in different sizes</p>			
<p>Lockable return drug box (Distinctive medical)</p> 	<p>Meets infection control requirements Secure construction Option of key or coded locks. May be secured to wall or locker. Letter box top allows ease of placing product in for security.</p>		<p>Key £156 per box Code £252 per box</p> <p>28 per ward as needed to be permanently affixed to each bed space £4368 per ward (key) £7056 per ward (code) <i>May be able to consider 2 per ward if a system can be found for mounting brackets on existing systems + estate costs</i></p>	<p>Page 112 of current Distinctive Medical catalogue. Size - 300mm x 150mm x 180mm Product codes: Key: 3783 Code: 17847</p>
<p>Plastic locking wall box (Distinctive medical)</p> 	<p>Meets infection control requirements Secure construction (rigid plastic). Variable locking options (key, code, dial) Wall or locker mountable</p>		<p>(key) £53 each (code) £63 each</p> <p>£1484 per ward (key) £1764 per ward (code)</p>	<p>Page 118 of current Distinctive Medical catalogue. Large 270mm x 85mm x 60mm Product code: Key 18552 Code 18554</p>

Preferred options:

1. Plastic locking wall box- one per bed space. In order to provide a single solution across the trust, this device could be affixed to existing bedside lockers (inside the locker or drawer in an area that is appropriate for the patient population of that ward).
2. Lockable return drug box- one per bed space, or adapted that may be affixed to brackets where appropriate.
3. Metal storage box with top handle. Small stock holding per ward, plus central holding for wards that may require additional boxes on occasion.



Summary Table

Storage option	Product Characteristics												
	Pharmacy service compatible		Security				Meets infection control requirements	Nurse accessibility			Patient accessibility		
	DfD ward	Full self-administration	Wall or locker mounted	Not Easily Portable <sup>1</sup>	Key locked	Code or dial locked		Available at all bed-sides	Ease of storage	Ease of access	Close to bedside	Visible locking device	Lock controls suitable-dexterity
Utilisation of current locker	X	✓	✓	✓	✓	X	✓	✓	✓	✓	✓	✓	✓
Additional wall locker	✓	✓	✓	✓	✓	X	✓	✓	✓	✓	✓	✓	✓
Additional bedside cabinet	✓	✓	✓	✓ <sup>2</sup>	✓	X	✓	X	X	X	✓	✓	✓
Large cashier box	✓	✓	X	X	✓	X	✓	X	✓	✓	✓	✓	✓
Small cashier box	✓	✓	X	X	✓	X	✓	X	✓	✓	✓	✓	✓
Locked bags	✓	✓	X	X	✓	X	X	✓	✓	✓	✓	✓	✓
Patient responsibility	✓	✓	X	X	X	X	✓	✓	✓	✓	✓	X	X
Ward trolley	X	X	X	✓	✓	X	✓	X	X	✓	X	✓	X
Medical metal storage box	✓	✓	X	✓ <sup>2</sup>	✓	X	✓	X	✓	✓	✓	✓	✓
Drug return box	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Plastic medication wall box	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓

- 1- Although portable- the high acquisition cost may require that the item is stored centrally rather than on individual wards. This could present a barrier to timely access.
- 2- Although a portable system- this is the same system that is being used by the ophthalmology department for transportation of drugs. Also, as it is not a common household product- may potentially be less likely to be removed from wards by people wanting them for personal use.