National Patient Safety Agency (NPSA) Alert 19 – Promoting safer measurement and administration of liquid medicines via oral and other enteral routes

Recommendations for implementation in Northern Ireland

Introduction

Following the issue of circular HSC (SQSD) 28/2007 recommending implementation of this alert in Northern Ireland, the regional expert group on pumps and disposables associated with dietetic products included it in their remit. The expert group is a multidisciplinary one with membership listed in Appendix 1.

These regional recommendations must be read in conjunction with NPSA alert 19 - http://www.npsa.nhs.uk/patientsafety/alerts-and-directives/alerts/liquid-medicines/

The group recommend that the following recommendations are considered and implemented by Trusts:

NPSA Recommendation 1: Design supply and use of oral/enteral syringes

- *only use labelled oral/enteral syringes that cannot be connected to intravenous catheters or ports to measure and administer oral liquid medicines;*
- *do not use intravenous syringes to measure and administer oral liquid medicines;*
- *make sure stocks of oral/enteral syringes are available in all clinical areas that may need to measure and administer oral liquid medicines in a syringe;*
- *when patients or carers need to administer oral liquid medicines with a syringe, supply them with oral or enteral syringes.*

NPSA Recommendation 2: Design, supply and use of enteral feeding systems

- *enteral feeding systems should not contain ports that can be connected to intravenous syringes or that have end connectors that can be connected to intravenous or other parenteral lines;*
- *enteral feeding systems should be labelled to indicate the route of administration;*
- *three-way taps and syringe tip adaptors should not be used in enteral feeding systems because connection design safeguards can be bypassed.*

A regional tender process for dietetic products is underway and part of the specification deals with oral/enteral syringes and enteral feeding systems. In the specification, only oral/enteral syringes and enteral feeding systems that comply with the requirements of the NPSA alert will be available for purchase by Trusts. The tender for dietetic products is due for completion by April 2009.

In the meantime, Trusts may encounter difficulties as RSS currently stock oral syringes with an oral tip that are incompatible with some of the newer NPSA compliant feeding systems. Some of these newer systems require an oral/enteral syringe with a female luer tip. To overcome these difficulties in the interim, RSS will consider stocking a second range of oral/enteral syringes, that is, with a female luer tip. It should be noted that RSS already currently stock a 50ml catheter tip syringe suitable for flushing.
In Trusts where supplies of oral/enteral syringes are obtained from Pharmacy departments, oral syringes with an oral tip and oral syringes with a female luer tip should be made available until the regional tender process is complete.

When the tender process is complete and NPSA alert compliant oral/enteral syringes and enteral feeding systems are available, Trust Medical Device committees and Trust Drug and Therapeutics committees will need to ensure that only NPSA alert compliant devices that have been tendered for are available for supply; otherwise Trusts may find that wards/clinical areas continue to order devices that are non NPSA alert compliant via a 'non stock' order.

Currently a 5ml oral/enteral syringe is the only size that can be dispensed from a community pharmacy. The regional group is working with CSA to review this situation for Northern Ireland.

NPSA Recommendation 3: Organisational procedures, training and audit.

- *medicines and enteral feeding policies and procedures should identify and manage the risk of administering oral liquid medicines by the wrong route;*
- *these procedures should be part of the organisation's training and competency*
  assessment programmes;
- *annual medicines management audits should include a review of the measurement and administration of oral liquid medicines to ensure compliance with local policies and procedures.*

To also assist Trusts with implementation of the alert the Northern Ireland Medicines Governance team produced a revised 'Policy for the use of oral/enteral syringes in the safer measurement and administration of liquid medicines via oral and other enteral routes in secondary care'. This was issued to Directors of Pharmacy on 28/09/07 (Appendix 2) and will need to be further updated following completion of the regional tender.

There is a significant training requirement with this alert in terms of initial and ongoing training. Resources will need to be identified by DHSSPS to allow Trusts to fulfil this training requirement.

Appendix 1

Name	Job Title
Janine Burnside	Clinical Specialist Dietician, BHSCT
Ashleigh Nelson	Adult Enteral Tube Feeding Coordinator SHSCT, job-share with Maria Tynan
Maria Tynan	Adult Enteral Tube Feeding Coordinator SHSCT, job-share with Ashleigh Nelson
Debbie McGivern	Locality Prescribing Adviser, SHSSB
Elaine Willis	Community Children's Nurse, SHSCT
Elizabeth Moore	Chief Dietician, BHSCT
Gemma Napier	Community PEG Co-ordinator, N&W
Dr Graham Turner	Consultant Gastroenterologist, WHSCT (Altnagelvin)
Stephen Hanna	Clinical / Electronics Engineer, DHSSPS
Karen Woodside	Nutrition Nurse Specialist, BHSCT
Dr Jill Mairs	Regional Procurement Pharmacist
Sheelagh Hillan / Martha Magowan	Community Pharmacist, Randalstown Pharmacy
Michael Ross	Technical Services Manager, SHSCT (Craigavon)
Alix Rankin	Gastroenterology Nurse Endoscopist, WHSCT (Altnagelvin)
Rosie Smyth	Nutrition Nurse, BHSCT (RVH)
Dr Mike Scott	Head of Pharmacy and Medicines Management, NHSCT
Dr Mark Timoney	Senior Principal Pharmaceutical Officer, DHSSPS
Judit Barta	Procurement Pharmacist
Howard Tebby	Industry Representative
Sharon O'Donnell	Medicines Governance Pharmacist
Pauline Davison	Paediatric Gastronomy Nurse, BHSCT (RBHSC)
Denise Baines	Central Services Agency, Regional Supplies Service
Lesley Edgar	Principal Pharmaceutical Officer, DHSSPS
Debbie King	Procurement Technician
Anita Hogg	Principal Pharmaceutical Officer, DHSSPS
Maureen O'Dowd	Practice Educator, Regional Neonatal Unit, RJMS
Glynis Worthington	Paediatric Intensive Care Nurse, BHSCT (RBHSC)

Appendix 2

Policy for the use of oral/enteral syringes in the safer measurement and administration of liquid medicines via oral and other enteral routes in secondary care

(Developed by the Northern Ireland Medicines Governance Team
December 2003, Updated September 2007)

Aim

To reduce the possibility of oral medication being administered via the parenteral route.

Rationale

The use of intravenous syringes for the measurement and administration of oral medicines has resulted in inadvertent administration of oral medication via the parenteral route. The oral/enteral syringes stocked in this Trust* (see Page 2) have different tips that are incompatible with IV equipment thus reducing the risk of this type of incident. The oral/enteral syringes are compatible with enteral feeding tubes and the purple plunger provides a visual reminder that the medication in the syringe must be administered via the enteral route.

Policy

IV syringes must never be used to measure or administer liquid oral medicines either orally or through an enteral feeding tube.

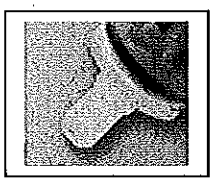
A medicine cup or 5ml spoon is used to measure and administer liquid oral medication except in the following situations where an oral/enteral syringe is appropriate:

- The dose cannot be accurately measured using a medicine cup or 5ml spoon, i.e. the dose is not 5ml or a multiple of 5ml.
- Administration via an enteral feeding tube.

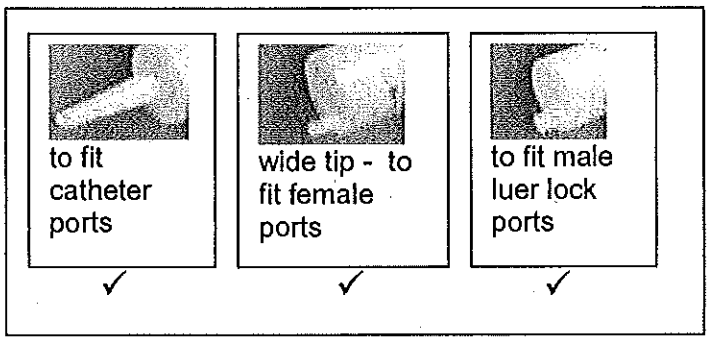
- Administration from a medicine cup or 5ml spoon is unsuitable e.g. babies and young children.

Where an oral/enteral syringe is used, it should have a purple plunger to aid differentiation from other syringes.

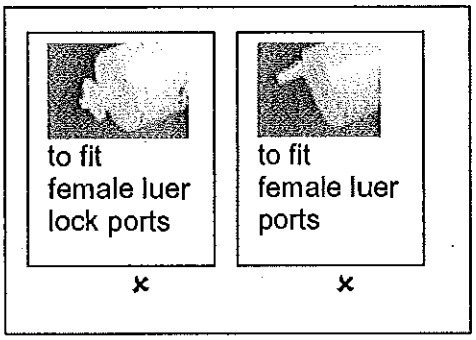
Oral/enteral purple syringes in sizes below 50ml are available with a wide tip that is incompatible with IV equipment.



* 50ml oral/enteral purple syringes are available with a number of tips. Some of these are compatible with IV equipment – <u>these syringes must not be stocked in the Trust</u> and must not be ordered via the non-stock ordering process.



Oral/enteral syringes not compatible with IV equipment



Oral/enteral syringe compatible with IV equipment – **DO NOT USE**

1ml, 3ml, 5ml, 10ml, 20ml, 50ml oral/enteral syringes and 'press-in bungs' are available from [*Trust to specify*] and are latex free. Press-in bungs allow removal of the dose from a medicine bottle using an oral/enteral syringe with a wide tip.

CAUTION Smaller (less than 50ml) oral/enteral syringes exert a higher pressure, which can split the feeding tube. Oral/enteral syringes, particularly smaller oral/enteral syringes, must not be used to administer medicines until tube patency has been established, as per Trust policy.

In exceptional circumstances, where a non-standard enteral feeding tube, which is only compatible with IV equipment is in use, the oral/enteral syringe may

require use of a red tip adaptor that makes the syringe compatible with IV equipment. Red tip adaptors are available from Pharmacy by special request only. They must be removed from use as soon as no longer required for a patient.

Oral/enteral syringes are available either sterile or non-sterile, according to Trust policy.

To avoid potential contamination of medication and cross infection, oral/enteral syringes are **single patient use only.**

Once an oral/enteral syringe has been used to administer medication to a patient, the **used oral/enteral syringe must not come into contact with an original container of medicine** again.

A patient may be taking more than one liquid medicine at the same time of day. Where each dose can be measured accurately using a medicine cup and the oral/enteral syringe is only required for administration, the same syringe can be used to draw up and administer each dose from a medicine cup, provided each dose is administered separately.

In hospital, **used oral/enteral syringes should be discarded after each episode of medicine administration**, according to the Trust waste disposal policy.

Following discharge, oral/enteral syringes may be reused by an individual patient in accordance with manufacturers' guidance for washing and re-use, with the exception of patients for whom it has been agreed that sterile equipment must always be used.

Adequate supplies of oral/enteral syringes must be supplied if required to administer the quantity of medication supplied on discharge or to out-patients.

Roles and Responsibilities

All staff that supply or administer oral medicines must adhere to this policy.

Training

This policy must be included in training programs for the administration and dispensing of medicines and management of enteral feeding tubes.