University Hospitals of North Midlands NHS Trust

Royal Stoke University Hospital
Data, Security and Protection
Newcastle Road
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Staffordshire
ST4 6QG

Email foi@uhnm.nhs.uk

Ref: FOIA Reference 2023/24-130

Date: 26th June 2023

Dear

I am writing to acknowledge receipt of your email dated 1st June 2023 requesting information under the Freedom of Information Act (2000) regarding Antibiotic Administration Set Line Flushing

As of 1st November 2014 University Hospitals of North Midlands NHS Trust (UHNM) manages two hospital sites – Royal Stoke University Hospital, and County Hospital (Stafford). Therefore the response below is for the two sites combined from that date where appropriate.

Q1 **Please find attached a Freedom of Information Request letter from [redacted] (in .pdf format).**

In my role as a Member of the House of Lords, I am helping to shape the United Kingdom's response to antimicrobial resistance (AMR). An important part of this is to understand the correct usage and disposal of antimicrobials in UK hospitals.

I am therefore submitting this Freedom of Information Request (FoIR), aiming to understand how each NHS organisation uses and disposes of antimicrobials when given as an intravenous (IV) intermittent infusion. Your responses may be integrated into a working paper on antibiotic residues and pharmapollution. They may also be used to ask questions to the Department of Health and Social Care (DHSC) and Care Quality Commission (CQC) regarding on-going inspections of hospital practices and policies in relation to the threat posed by AMR.

Please provide an overall answer to the questions below factoring in practice in the following clinical areas of the hospital: Critical Care, Emergency Department/Wards, Medical Wards, Surgical Wards, Outpatients, etc.

Please exclude the following areas—where evidence shows that correct practice already takes place— from your response: Oncology, Haematology, Paediatrics, and Neonatal Units. Please also exclude responses related to flushing of the needle free extension or vascular access device as these questions specifically relate to the residual volume of antibiotic in the administration set line (infusion pump set and/or gravity set).

A template spreadsheet (in.xlsx format) is provided for you to fill out as a further attachment to the email containing this letter. Please use this template for ease of data processing.

Q1a. With regards to administration sets (pump and gravity) used to infuse IV antibiotics, does your institution have a policy to flush the administration set to give the full dose of antibiotics in accordance with the following guidelines?

- **The Royal Marsden Manual of Clinical Nursing Procedures, Tenth Edition, Chapter 15, which states: "After completion of an intermittent infusion, an appropriate diluent solution should be administered via the administration set. This is to ensure the full dose of medication has been administered to the patient."**

- **The "MEDUSA" injectable medicines guide instructions on how to administer intermittent infusions, which states: "Flush the administration set before it is disconnected with sufficient volume of sodium chloride (or compatible diluent) to ensure the total dose is given. Flush at the same rate the medicine was administered."**

- **The National Infusion and Vascular Access Society (NIVAS) "Intravenous Administration of Medicines to adults: Guidance on 'line flushing' Version 3 2021", which states: "'At the end of the infusion, the medicine remaining in the infusion set should be flushed with sodium chloride 0.9% or other compatible diluent, using one of the methods described below."**

Q1b. If the answer to Q1a is "yes", is your organisation fully compliant with your policy to flush the administration set to give the full dose of antibiotics in accordance with guidelines?

Q1c. If the answer to Q1a is "yes", do you follow method 1 or 2 as outlined by the NIVAS guidelines linked above?

Q2a. With regards to administration sets (pump and gravity) used to infuse IV antibiotics, if you do have a policy in place to flush the administration set, have you audited compliance with this policy?

Q2b. If the answer to Q2a is "yes", can you share the audit results? If so, please provide a copy as an attachment to your response to this FoIR.

Q3. What education measures have you put in place to ensure healthcare professionals in your organisation understand?
a. The existing guidance on flushing administration sets that are used for IV antibiotic infusions (as laid out in the sources above)?

b. The patient risks involved with failing to flush the residual volume of IV antibiotics in the administration sets?

c. The possible effects of not flushing the IV administration set containing IV antibiotics on antimicrobial resistance?

Q4. With regards to administration sets (pump and gravity) used to infuse IV antibiotics, which of the following (if any) are included in your policy with regards to disposing of the administration set and residual volume of either the prescribed antibiotic or flushing solution?

a. Complete administration set (including drip chamber with sharp) is disposed of into the yellow bag.

b. Complete administration set (including drip chamber with sharp) is disposed of into the orange bag.

c. Complete administration set (including drip chamber with sharp) is disposed of into the sharps bin.

d. Drip chamber/sharp are detached from the administration set line and the drip chamber/sharp disposed of in the sharps bin and the rest of the administration set line disposed of in the yellow bag.

e. Drip chamber/sharp is detached from the administration set line and the drip chamber/sharp disposed of in the sharps bin and the rest of the administration set line disposed of in the orange bag.

f. Other (please state)

Please also find attached a response template (in .xlsx format), as indicated in the letter.

A1 Refer to the attached spread sheet that you supplied

*Please note that any individuals identified do not give consent for their personal data to be processed for the purposes of direct marketing.

UHNM NHS Trust is a public sector body and governed by EU law. FOI requestors should note that any new Trust requirements over the EU threshold will be subject to these regulations and will be advertised for open competition accordingly.

An anonymised copy of this request can be found on the Trust's disclosure log, please note that all requests can be found at the following link: http://www.uhnm.nhs.uk/aboutus/Statutory-Policies-and-Procedures/Pages/Freedom-of-Information-Disclosure-Log.aspx

This letter confirms the completion of this request. A log of this request and a copy of this letter will be held by the Trust.

If you have any queries related to the response provided please in the first instance contact my office.

Should you have a complaint about the response or the handling of your request, please also contact my office to request a review of this. If having exhausted the Trust's FOIA complaints process you are

still not satisfied, you are entitled to approach the Information Commissioner's Office (ICO) and request an assessment of the manner in which the Trust has managed your request.

The Information Commissioner may be contacted at:

Information Commissioner's Office, Wycliffe House, Water Lane, Wilmslow, Cheshire SK9 5AF or via www.ico.org.uk.

If following review of the responses I can be of any further assistance please contact my secretary on 01782 671612.

Yours,

Rachel Montinaro
Data Security and Protection Manager - Records