South Tees Hospitals NHS
NHS Foundation Trust

CLINICAL GUIDELINE

Document No: CG13
***All Sites**

PAEDIATRIC GUIDELINES FOR THE ADMINISTRATION OF INTRAVEOUS ANTIBIOTICS AT HOME

TITLE	**Paediatric Guidelines for the Administration of Intravenous Antibiotics at Home.**
Version:	Version 3
Author/lead responsible for policy:	Pauline Singleton Fiona Lindsay
Date issued:	August 2010
Review date:	May 2018
Target audience:	Children's and Adult Home IV Services
Amendments and Additions	Reviewed Guideline
Replaces/supersedes:	Version 2
Associated Policies:	01 Standard Principles of Infection Control 14 Hand Hygiene 33 Lone Worker Policy 34 Medicines Policy 77 Management of Medical Devices Policy 78 Medical Device Training Policy

CONTENTS

INTRODUCTION

These guidelines were developed by the Specialist Nurses and Children's Community Nurses at James Cook University Hospital and Friarage Hospital Northallerton and adapted for use within the adult population

Some children require regular courses of IV Antibiotics that can be safely administered at home without it affecting the outcome of their treatment or require a long course of IV Antibiotics but may not need to remain in hospital for monitoring or treatment whilst this happens.

The Nurse, patient or parent/carer administering the IV Antibiotics needs to be deemed competent in this procedure, be capable of identifying and responding appropriately to anaphylaxis and able to identify any problems with IV access.

The Child's Consultant Paediatrician must give consent for any referral requiring IV Antibiotic therapy at home.

Children referred from a Regional Centre will have their IV antibiotics administered or lines flushed as per the referring centres guidelines/policies/protocols. This is to minimise anxiety for these families who are used to having their care always carried out according to the Regional Centres guidelines/policies/protocols

AIMS

The guidelines are to provide guidance to the general requirements that need to be met to facilitate the safe and effective administration of IV Antibiotics at home.

The IV Antibiotics will be administered at home following the appropriate Trust Policies.

OBJECTIVES

The intention of this guideline is to ensure that each member of the Trust staff who is involved in the organisation of and the administration of IV Antibiotics at home or the teaching /assessing of patients/parents/carers to give IV Antibiotics at home is aware of their own accountability and that of the Trust. Each person is responsible for his or her own actions and that steps are taken to minimise risk. The guideline also outlines the level of training to be undertaken to ensure safe practice.

To ensure staff within the division exercise their duty of care and comply with the guidelines when patients are to commence the administration of IV Antibiotics at home.

To minimise adverse events during the administration of IV Antibiotics at home.

Children will only be referred for administration of IV Antibiotics at home following optimal preparation supported by clear and effective communication and documentation

The child's Consultant Paediatrician must be involved in the decision process and will be informed of the arrangements being made

RESPONSIBILITES

Nursing staff must be aware of their responsibilities with regards to the NMC publication (2010) Standards for Medicines Management.

Consultant.

It is the responsibility of the Child's Consultant Paediatrician in discussion with the clinical team to make the decision that a referral for a child requiring IV Antibiotic therapy at home is clinically appropriate. Fill out the IV prescription chart to be sent to pharmacy (Appendix 8).

The Clinical Team

The Clinical Team involved in decision making related to administration of IV Antibiotics at home must assess the benefits and risks associated with their decision with reference to the guidelines on pages 4, 5, 7 & 8 and the appropriate Policies listed on the front of this document. Good clinical care is based upon principles of what is in the best interests of the patient.

Ward Staff.

To complete a referral form (Appendix 1), checklist (Appendix 2), give patients/parents information leaflet (Appendix 3) and follow the guidance on pages 4 - 7 & 9 with regards to the supply of equipment and information for the patient/parents.

Nurse Administered Home IV Antibiotics

Generally IV Antibiotics can only be administered during normal service hours (Monday to Friday 08.00 – 17.00) to patients on the Children's Community Nursing/Specialist Nurses Case load or for those referred as a short-term referral for home IV Antibiotics only. All potential referrals must be discussed with the appropriate team. FHN CCN Team (tel: 01609 764202), JCUH CCN Team (tel: 01642 852793), the Respiratory Team (tel: 01642 854685) or the Cystic Fibrosis Team (tel: 01642 854684)

Prior to acceptance of a referral for home IV Antibiotic therapy the Children's Community Team/Specialist Nurses will asses the referral with regards to present service commitments, staffing availability, frequency of administration and in some instances geographical location of the family home etc. The Children's Community Nurse Team / Specialist Nurse will inform the child's Named Nurse or Nurse-in-Charge of the outcome of this assessment.

It is the nurse's professional responsibility to ensure he/she is aware of relevant guidelines and policies relating to the administration of intravenous medications including their responsibility's relating to emergency situations.

At the end of a course of IV Antibiotics administered by a nurse a letter will be sent to the Paediatrician and GP (Appendix 9).

Patient/Parent/Carer Administered Home IV Antibiotics

Whenever possible the patient / parent /carer should receive teaching of administration in advance of the planned course of treatment to build confidence and reduce anxiety (Appendix 4)

At the beginning of the IV course the patient and parent/carer attend the Children's Unit where the patient will have their height, weight and other relevant tests performed. Appropriate venous access is obtained.

For the first course the patient/parent/carer is supervised during the administration of a minimum of three doses. The named nurse demonstrates the first dose and observes the patient/parent administer subsequent doses. These doses may be given on the unit and subsequently in the patient's home. Support should only be reduced when the patient/parent/carer is confident in administering the treatment and the named nurse are satisfied that all principles of care are followed. Once patient/parents / carers are competent the nurse will contact them within 72 hours of discharge to offer support (Appendix 6).

For drugs which are administered once daily it is likely that the second and third dose will be observed being administered in the patient's home. Observing the patient/parent in their own home allows problems and practicalities to be addressed from the outset.

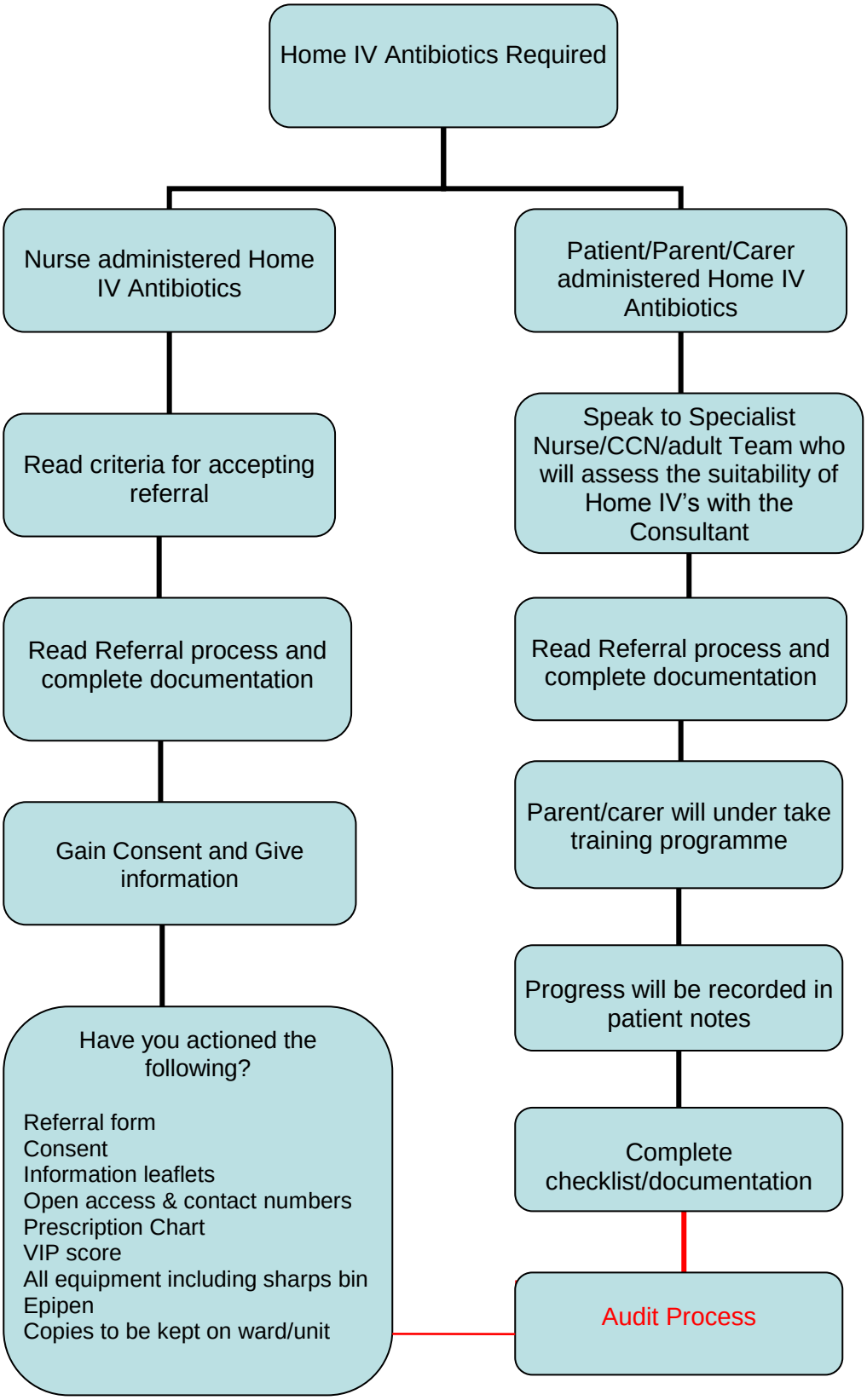
For subsequent courses of treatment only the first dose is required to be administered under supervision, unless the antibiotic is being prescribed for the first time, in which case two doses are supervised to ensure safety. The patient is required to attend the children's unit and during this time instructions are given both verbally and written. An information booklet is also given to the patient/parent detailing the various steps involved in administering IV treatment (Appendix 3, 4 & 7). All patients are issued with concise written instructions in case of adverse reaction (Appendix 5).

At the end of the two week course of home IV antibiotics the patient can either attend the children's unit (if further tests are required) or a home visit may be arranged by the named nurse. The nurse or doctor will decide whether optimum improvement has occurred or if further treatment is required. If the course is complete the nurse will remove the venous access device and follow up appointment will be given.

MONITORING

Compliance with these guidelines will be monitored with the Audit tools in Appendix 10 by the appropriate Children's Community Nurse Teams/Specialist Nurses.

FLOW CHART


Home IV Antibiotics Required
Nurse administered Home IV Antibiotics
Patient/Parent/Carer administered Home IV Antibiotics
Read criteria for accepting referral
Speak to Specialist Nurse/CCN/adult Team who will assess the suitability of Home IV's with the Consultant
Read Referral process and complete documentation
Read Referral process and complete documentation
Gain Consent and Give information
Parent/carer will under take training programme
Have you actioned the following?
Referral form
Consent
Information leaflets
Open access & contact numbers
Prescription Chart
VIP score
All equipment including sharps bin
Epipen
Copies to be kept on ward/unit
Progress will be recorded in patient notes
Complete checklist/documentation
Audit Process

Criteria for Assessing suitability of Home IV Antibiotics

When the Community/Specialist Nurses are considering whether a referral for home IV antibiotics can be accepted the following points will need to be taken into account as they may affect whether IV Antibiotics can be administered at home.

- Staffing levels and skill mix – are there enough competent people available for the duration of the course of treatment. If not are there any safe viable alternatives that can be offered.
- Where do the family live – is possible to fit the visit into the current workload of the Team being asked to accept the referral?
- How often is the IV antibiotic being given and how long will it take from arrival at the house to end of administration and will this fit in with the current caseload/visits?
- If the family do not have transport to return to the Hospital for any problems with the IV access device then further discussion within the Clinical Team is required.
- Does the family understand the need for monitoring during the course of treatment and are they prepared to be available for this?
- Are the family able to contact the Emergency Services/Hospital in the case of concerns and recognise the symptoms of anaphylaxis?
- Have the family collected the sharps bin from their GP/pharmacy and will they return it there when the treatment has been completed.
- Can the sharps bin, needles, syringes and medicines be safely stored out of the reach of children, or can they be safely stored elsewhere?
- Will / can the parents recognise the symptoms of anaphylaxis and respond appropriately.
- Is the family home accessible, in an acceptable time scale, by the emergency services in the case of anaphylaxis? If not then discussion with Paediatric Consultant will need to take place as to whether an Epipen needs to be left in the home or whether it is safe to administer IV antibiotics in the home.
- Is there enough room/space within the home for the nurse to safely prepare and administer the IV antibiotics? Is there running water and is the home clean enough?
- If an infusion device is to be used is it available and are staff competent in its use?
- Has the carer received adequate training in giving IV therapy and the complications that may occur?
- Is the carer willing to undertake regular review and assessment of technique?
- If there are Safeguarding Children issues with the family reconsider suitability for home IV Antibiotics.

Children's Community Team/Specialist Nurses
Process for Accepting Referral.

1. When the child is an in-patient, the Children's Community Nurse / Specialist Nurse accepting the referral will aim to meet the family on the Children's Unit / Ward prior to discharge.

2. The Children's Community Nurse/Specialist Nurse who will carry out the first home visit will take out all the supplies and medication required on their first home visit. Supplies will be left in the home once the Children's Community Nurse / Specialist Nurse has made an assessment, that there is a safe place to store medication and any syringes, needles etc.

3. In the event of any problems with venflon site/access, central line problems, the nurse will attempt to resolve within her realm of competency. If the child requires medical care the ward will be notified and if appropriate topical anaesthetic cream will be applied at home and the child will return to the Children's Unit / Ward / PDU to be seen by the medical staff. The Children's Community Nurse/Specialist Nurse with the Children's Unit / Ward / PDU will arrange this.

4. The Children's Community Nurse / Specialist Nurse will discuss any other concerns that they have with the appropriate on-call doctor and if necessary review will be arranged back on the Children's Unit / Ward / PDU

5. In the event of any emergency occurring in the home the Children's Community Nurse / Specialist Nurse will call an emergency ambulance immediately and remain with the child until medical help arrives, the Epipen will be used if appropriate.

6. Information regarding the child receiving home IV Antibiotic therapy will be kept on the Children's Unit/Ward/PDU for the duration of the course, the child's hospital notes should also be kept on the Children's Unit / Ward / PDU during this time.

7. The child's prescription chart will be kept by the Children's Community Nurses / Specialist Nurses administering the IV Antibiotics and will be filed in their notes on completion of the course of IV Antibiotics.

8. The Child's Consultant will be informed at the end of the course of IV Antibiotic therapy. The Consultant at the Regional Centre will also be informed. They will also be informed of any adverse reactions / anaphylaxis.

Children's Ward/Unit Staff Referral Process and Responsibilities

Once the Consultant's consent has been gained for home IV Antibiotic therapy the child's Named Nurse or Nurse-in-Charge should contact the Children's Community Nurse Team / Specialist Nurse as soon as possible to discuss the potential referral. The following steps must be followed to ensure safe administration for IV Antibiotic therapy at home:

1. Parental / Carer written consent must be gained and they need to be aware that the time of administration at home may vary slightly. They also need to be aware that they will need to attend the PDU or Children's Ward for IV's that are required out of service hours (e.g. Bank Holiday, weekends or between 17.00 and 08.30)

2. If the IV Antibiotics are more than once a day the family will need to attend the Ward or PDU for the doses during the day that cannot be administered by the Children's Community Nurses or Specialist Nurses.

3. Parents should have contact numbers for the Children's Unit / Ward or PDU and know to contact them if they have any problems or concerns at home during time of IV Antibiotic therapy. The ward staff should then notify the Children's Community Nurse Team / Specialist Nurse of this telephone call or if the home-visit is to be cancelled.

4. Checklist for Home IV Antibiotic therapy to be completed by Ward Staff and given to the Children's Community Nurse Team / Specialist Nurse. Additional photocopy of all paperwork will be kept on the Children's Unit / Ward / PDU.

5. Clear valid Prescription/Drug Chart stating time of drug administration, route of administration, amount of drug to be administered and any additional information to be documented e.g. water to be added to the drug, problems previously experienced with the cannula, duration of administration.

6. When ordering the IV Antibiotics for administration at home the complete course needs to be prescribed and given to the Children's Community Team / Specialist Nurses by the ward.

7. Ward staff must arrange with the child's GP to have a sharps bin provided on prescription prior to discharge, as it will be needed for disposal of all needles etc. Parents should be made aware that they would need to collect and return the sharps bin to their GP or chemist.

8. Ward staff must ensure the appropriate size/number of needles, syringes, disinfectant wipes, needle free ports, gloves etc is supplied to the Children's Community Team / Specialist Nurses.

9. An Epipen must also be prescribed, and carried by the Children's Community Team / Specialist Nurses for use in case of emergency if they are administering the medication.

References

Duncan –Skingle. F. (2004)

Procedures and practice of Intravenous Cannulation. Forest Laboratories. UK.

NMC (2010)

Standards for Medicine Management. Nursing and Midwifery Council, London.

RCN (2003)

Administering Intravenous therapy to children in community setting – Guidance for Nursing Staff 3rd Ed. RCN. London.

Resuscitation Council UK (2008)

Emergency treatment of Anaphylactic reactions

UK CF Nurse Specialist Group (2005)

National Consensus standards for the nursing management of Cystic Fibrosis. London.

Appendix 1

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IV ANTIBIOTICS AT HOME REFERRAL FORM

James Cook University Hospital
Marton Road
Middlesbrough
TS3 4BW
CCN Team Tel: 01642 282793/4
Sp/N Tel 01642 854684/5

<table>
<tr><td>Name:</td><td>Consultant:</td></tr>
<tr><td>Date of Birth:</td><td>Hospital Number:</td></tr>
<tr><td rowspan="3">Address:

Tel:</td><td>NHS Number:</td></tr>
<tr><td>Parents/carer names:</td></tr>
<tr><td>Siblings' names:</td></tr>
<tr><td>GP Name:</td><td rowspan="2">Surgery Address:

Tel:</td></tr>
<tr><td>Health Visitor/School Nurse/social worker</td></tr>
<tr><td>Referral date:</td><td>Referred by:</td></tr>
<tr><td colspan="2">Diagnosis:</td></tr>
<tr><td colspan="2">Referral instructions and additional information:</td></tr>
</table>

Appendix 2

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CHECKLIST FOR HOME INTRAVENOUS ANTIBIOTICS

ID Sticker

If the child is being referred to the Children's Community Nurses/Specialist Nurses the following form must be completed in addition to the Short Term Referral form.

1. Venous access (Please circle) Cannula / Long line / Portacath (Type …… Size ……)

2. Date sited: Position …… VIP Score ……...

3. Telephone access at home Yes ☐ No ☐

4. Transport available Yes ☐ No ☐

5. Venous access Information leaflet given ☐

6. Adverse Reaction Information leaflet given ☐

7. Contact Numbers given ☐

8. Prescription Chart ☐

9. Medication ☐

8. Ancillary equipment:
   - Syringes ☐ Size …….. No. Given …….
   - Needles ☐ Size …….. No. Given …….
   - Alcohol wipes ☐
   - Syringe Driver ☐ Serial No. ……
   - Extension Sets ☐ No. Given ……

9. Dressings: Gauze / Tegaderm / Tape / Bandage ☐

I am happy to take my child home with a Cannula / Longline / Portacath needle (Please delete) in place.

Parent /Carer Name ……. Signature ……

Staff Name ..... Signature ……

PIN : …….. Date: .....

Appendix 3

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CONTACT NUMBERS:

The James Cook University Hospital,
Marton Road,
Middlesbrough,
TS4 3BW

Ward 21 01642 854521 (open 24hrs 7 days a week)
Ward 22 01642 854522 (open 24hrs 7 days a week)
Paediatric Day Unit 01642 854896 (open 8am-9pm 7 days a week)
Children's Community Team 01642 282793 (open 8am-5pm Monday- Friday)

The Friarage Hospital,
Northallerton,
North Yorkshire,
DL6 1JG

SSPAU 01609 763002 (open 10am – 10pm daily)
Children's Community Team 01609 764202
(open 8am-5pm Monday- Friday)

Patient Information leaflet
CARE OF A CANNULA
AND
CARE OF A LONGLINE

M. Gannon, C. Carveth-Marshall, F Lindsay
December 2007.

Reviewed November 2014
For Review November 2016

What is a Cannula?

A cannula is a small flexible plastic tube that is inserted through the skin into one of your veins. A small needle is used to insert the cannula into the vein. Once the cannula is in place the needle is removed leaving the plastic tube inside the vein. A cannula can only be used for a few days before it is removed to help prevent infection.

What is a Longline?

A longline is a flexible silicone tube that is inserted through the skin into one of your veins. A small needle is used to insert the longline into the vein. Once the longline is in place the needle is removed leaving the silicone tube inside the vein. If the longline is kept clean and dry and is free from other complications it can stay in for several weeks**.**

This allows medications, fluids and blood products to be given directly into your blood. Some treatments are more effective if given directly into the blood stream. Please speak to the nurses looking after you if you feel pain, tenderness, warmth, redness or swelling where the line goes into the skin or if you have any concerns.

What are the risks?

Any object that punctures the skin has a risk of letting infection into the body. A good insertion technique will reduce this risk. The line can sometimes rub in the vein and cause irritation. Difficult or unsuccessful insertions can result in bruising.

Care of the line

A sterile clear dressing will be placed over the line and a bandage is also used. It is important that this is kept clean and dry. In hospital, the nurses will look at your line regularly and fill in a chart to say it looks fine. The line will be removed when it is not needed any more or if the line stops working properly.

Can I still go to school/play sport?

Most children are advised to stay off school and avoid contact sports to stop the line being knocked or pulled. Your nurse will be able to advise further on this.

How do I get washed?

The line needs to be kept out of water. Depending on the position of the line a rubber glove or cling film over the bandage or line can help keep it dry during washing. The bandage and sometimes the dressing need to be changed if they get wet or dirty.

What should I do if the line or area around it is red and/or hurts?

This shouldn't happen - please contact the ward for advice.

What should I do if the line is leaking or bleeding?

If the line has been knocked or has moved slightly, sometimes fluid/blood can leak out of the area around the line. Put the gauze dressing over the leaking/bleeding area and press until it stops. Please contact the ward for further advice.

What should I do if the line is knocked, pulled or played with?

If it is leaking or hurting please contact the ward for further advice. If the line is still in place and not bleeding or leaking, flush it with saline if no further problems then continue as normal.

What should I do if the dressing is coming off or the line has fallen out?

If the line is still in place then replace the bandage and contact the ward for further advice. If bleeding is seen or if the line has fallen out apply pressure to where the line came out (sometimes you will see a small amount of bleeding.) Please contact the ward for further advice.

Appendix 4

South Tees Hospitals NHS
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INFORMATION BOOKLET FOR

ADMINISTRATION OF HOME

INTRAVENOUS ANTIBIOTIC THERAPY

By Patient / Parents / Carers

Fiona Lindsay & Pauline Singleton
SpN - CF
November 2014 (Review November 2016)

The following booklet is designed to give a step by step guide to patients administering home intravenous antibiotics. If at any stage you are unsure about the correct administration or have any worries please contact your named nurse. If you are unable to contact your named nurse please contact the children's unit using the telephone numbers listed. We are always happy to guide and advise you further.

Named Nurse …….. Tel No …….

CONTACT NUMBERS:

The James Cook University Hospital,
Marton Road,
Middlesbrough,
TS4 3BW

Ward 21	01642 854521 (open 24hrs 7 days a week)
Ward 22	01642 854522 (open 24hrs 7 days a week)
Paediatric Day Unit	01642 854896 (open 8am-9pm 7 days a week)

The Friarage Hospital,
Northallerton,
North Yorkshire,
DL6 1JG

SSPAU	01609 763002 (open 10am – 10pm daily)
Children's Community Team	01609 764202 (9am – 5pm Mon – Fri)

THE DO'S AND DON'T'S OF INTRAVENOUS THERAPY

DO'S

DO be clean at all stages – if unsure wipe it!

DO check all drugs to be given
- Name
- Amount
- Expiry date
- Diluting solution volume
- Administration time

DO give medication slowly: half an hour skipped in administration could result in a whole day in casualty following an adverse reaction!

DO place all clinical waste in your Sharps Bin

DON'TS

DON'T inject air into the vein – large volumes of air can be life threatening

DON'T give anything you are unsure about:-
- Amount of drug
- Type of drug
- Needle/cannula site

DON'T use the same needle twice

DON'T use the same syringe twice

DON'T dispose of sharps in a domestic bin, use a burn bin

HOW TO GIVE INTRAVENOUS ANTIBIOTICS

Preparing the Antibiotic

1. Wash hands and prepare clean area
2. Check Antibiotic - Correct drug ? Correct Dose ? Expiry Date ?
3. Check water / sodium chloride - Sterile ? Expiry Date ?
4. Open the syringe and needle and connect together - making sure not to contaminate the ends - leave covered.
5. Swab the top of the antibiotic bottle with an Alcohol wipe. Allow to dry.
6. Carefully open the water / sodium chloride bottle and draw up the correct amount into syringe, expel any air bubbles.
7. Inject water / sodium chloride into antibiotic bottle.
8. Withdraw needle and place carefully on clean area.
9. Roll the bottle gently until all the powder has dissolved.
10. Re-swab the bottle with an Alcohol wipe and allow to dry.
11. Draw up the correct amount of antibiotic.
12. Expel any air bubbles from syringe.

Preparing the Heparin / Sodium Chloride x 2

1. Check Heparin / Sodium Chloride - Strength ? Expiry Date ?
2. Open the syringe and needle and connect together - making sure not to contaminate the ends - leave covered.
3. Carefully open the Heparin / Sodium Chloride and draw up correct amount.
4. Expel any air bubbles from syringe.

Giving Medication through a LONG LINE

IMPORTANT : Never use less than a 10ml syringe with a longline

1. Wash hands thoroughly and prepare clean area
2. Prepare Antibiotic, Sodium Chloride and Heparin as above.
3. Remove bandage from Long Line and check the site :-
   Redness ? Swelling ? Leaking ? - *STOP !!*
   Contact named nurse or paediatric unit.
   If O.K. - continue.
4. Clean bung with alcohol wipe and allow to dry.
5. Using syringe containing Sodium Chloride, insert into bung.
6. Open clamp.
7. Slowly inject the Sodium Chloride. **Unable to flush or painful- *STOP!!***
   Contact named nurse or paediatric unit.
   If O.K. - continue.
8. Close clamp.
9. Remove syringe from bung and safely dispose in Sharps Bin.
10. Using syringe containing Antibiotic, insert into bung.
11. Open clamp.
12. Slowly inject the Antibiotic over at least 3 - 5 minutes or as instructed.
13. Close Clamp.
14. Using 2nd syringe containing Sodium Chloride, insert into bung.
15. Open clamp.
16. Slowly inject the Sodium Chloride
17. Remove syringe from bung and safely dispose in Sharps Bin.
18. Using syringe containing Heparin, insert syringe into bung.
19. Open clamp.
20. Slowly inject the Heparin.
21. Close clamp.
22. Remove syringe from bung and safely dispose in Sharps Bin.
    Bandage Long Line securely.

Note : Only fill Sharps Bin 2/3 full, close securely and return to G.P. surgery

Giving Medication through a PORTACATH

***IMPORTANT* : Never use less than a *10ml* syringe with a Portacath**

1. Wash hands thoroughly and prepare clean area.
2. Prepare Antibiotic, Sodium Chloride and Heparin as above.
3. Check site through clear dressing :-

   Redness ? Swelling ? Leaking ? Pain ? - *STOP !!*

   Contact named nurse or paediatric unit.

   If O.K. - continue.
4. Clean bung thoroughly with Alcohol wipe and allow to dry.

   Ensure bung does not become contaminated.
5. Using syringe containing Sodium Chloride, insert into bung.
6. Open Clamp.
7. Slowly inject the Sodium Chloride.

   Unable to flush ? Pain ? Swelling ? *STOP !!*

   Contact named nurse or paediatric unit.

   If O.K. - continue.
8. Close clamp.
9. Remove syringe from bung and safely dispose in Sharps Bin.
10. Using syringe containing Antibiotic, insert into bung.
11. Open clamp.
12. Slowly inject the Antibiotic over at least 3 - 5 minutes or as instructed.
13. Close clamp.
14. Using 2nd syringe containing Sodium Chloride, insert into bung.
15. Open Clamp.
16. Slowly inject 10 mls of Sodium Chloride.
15. Remove syringe from bung and safely dispose in Sharps Bin.
16. Using syringe containing Heparin, insert into bung.
17. Open clamp
18. Slowly inject the Heparin ***and*** while still injecting, close the clamp.
19. Remove syringe from bung and safely dispose in Sharps Bin.
20. Retape the extension line securely.
21. Safely dispose of any remaining glass, bottles , needles and syringes in Sharps Bin.

Giving medication through an INTERMATE

Remove Intermate from fridge at least 1 hour before use
(can be left out of fridge for up to 12 hours)

1. Wash hands thoroughly and prepare clean area
2. Prepare Intermate – Open clamp and check that the extension tube is full of fluid and there are no air bubbles.
3. Prepare Sodium Chloride x 2 and Heparin.
4. Remove bandage from Long Line and check the site :-
   Redness ? Swelling ? Leaking ? - ***STOP !!***
   Contact named nurse or paediatric unit.
   If O.K. - continue.
5. Clean bung with Alcohol wipe and allow to dry.
6. Using syringe containing Sodium Chloride, insert syringe into bung.
7. Open clamp.
8. Slowly inject the Sodium Chloride. If unable to flush - ***STOP !!***
   Contact named nurse or paediatric unit.
   If O.K. - continue.
9. Close clamp.
10. Remove syringe from bung and safely dispose in Sharps Bin.
11. Connect Intermate to bung.
12. Open clamp and allow Intermate to infuse (this may take up to an hour).
13. When the Intermate is empty, close clamp and remove.
14. Flush the line with 10mls of Sodium Chloride following steps 5 – 10
15. Using syringe containing Heparin connect to bung.
16. Open clamp.
17. Slowly inject the Heparin.
18. Close clamp (using positive pressure if through a portacath).
19. Remove syringe from bung and safely dispose in Sharps Bin.

20. If Longline in situ bandage securely .

Note : Only fill Sharps Bin 2/3 full, close securely and return to hospital or G.P. surgery

Appendix 5

ADVERSE / ALLERGIC REACTIONS

PLEASE PLACE IN A PROMINENT POSITION

An allergic reaction to antibiotics can occur at any time whether this is your first or 10th dose of antibiotics. This may be mild, such as:

- Localised rash
- High temperature
- Nausea, vomiting or diarrhoea**.**

Contact your Named nurse on _____ or Paediatric unit immediately on 01642 854896 / 854521 if any of these symptoms occur.

EMERGENCY

However, a rare but more serious reaction can occur, called anaphylaxis. This is a very **dangerous allergic response** that needs immediate treatment.

Symptoms include:

Difficulty in breathing
Wheeze, tight chest
'Puffy' face and lips
Redness of the skin

Call an Ambulance immediately on 999

Explain that you are a patient on home intravenous antibiotics and that you are having a severe reaction.

Appendix 6

Administration of Home IV therapy by Patient/Parents

Patients Name .
Date Of Birth .

Competency Standard Statement		The parent(s)/patient will be able to fully understand the knowledge and skills required for the safe administration of intravenous antibiotics in the home environment
W	WITNESSED	Observe or witness the competency – it is considered good practice that the parent/patient will have the opportunity to discuss and observe the procedure prior to being supervised
A	ASSIMILATED	Understand the underpinning knowledge associated with each element of the competency 1 = DEMONSTRATES FUNDAMENTAL KNOWLEDGE AND UNDERSTANDING 2 = DEMONSTRATES BROAD KNOWLEDGE AND UNDERSTANDING 3 = DEMONSTRATES IN DEPTH KNOWLEDGE AND UNDERSTANDING
S	SUPERVISED	Practice under supervision to demonstrate understanding 1 = NEEDS FURTHER PRACTICE 2 = SHOWS APTITUDE 3 = DEMONSTRATES SKILL AND COMPETENCY
P	PROFICIENT	Competent in both knowledge and skill elements of the competency

ACTION	**RATIONALE**	**W**	**A**	**S**		**P**
Knowledge	**Is able to demonstrate sufficient knowledge to enable the parent/patient to safely administer intravenous antibiotics at home**					
Is able to identify the name and action of each intravenous drug to be administered						
Is able to work out dosage and interval times of all						

drugs to be administered						
Is able to identify the need for safe storage of intravenous medication						
Discusses the care and safety of venous access device - cannula / long-line / portacath						
Demonstrates the ability to safely use equipment required to administer IV therapy - intermate / syringe pump						
Discuss the process of who and how to contact in an emergency						
Technique	**Safely prepares, administers and manages intravenous therapy at home**					
Checks antibiotic for correct drug / dosage / expiry						
Checks dilutent – correct fluid / sterile / expiry						
Demonstrates ability to prepare a clean area for the mixing and administration of IV therapy						
Demonstrates the ability to use a non touch technique when making up antibiotics						
ACTION	**RATIONALE**	**W**	**A**	**S**		**P**
Discusses the safety aspects involved in managing a bolus / intravenous infusion						
Demonstrates the safe management of a bolus / intravenous infusion						
Discusses the potential problems associated with intravenous and / or bolus infusion						
Discusses the measurements taken to minimise the risks of complications occurring						
Safely prepares the injection site and checks venous access device prior to infusion						
Correctly administers the						

prepared drug / fluids, monitoring patients condition throughout						
Discusses the procedure and safe administration of two intravenous antibiotics						
Demonstrates the ability to correctly calculate accurate dosage and infusion rate						
Correctly completes the administration of intravenous therapy - heplock / bung / clamp						
Safely disposes of used sharps and equipment						
Demonstrates the ability to safely secure venous access						
Safety	**Is able to demonstrate knowledge of safety issues associated with intravenous therapy**					
Is able to demonstrate knowledge of side effects / allergic reactions / toxicity.						
Discusses their action if a drug error is made						
ACTION	**RATIONALE**	**W**	**A**	**S**		**P**
Describes signs and symptoms of an anaphylactic reaction						
Is able to identify signs of infection / blockage of venous access device						
Describe action for air in line						
Demonstrates safe disposal of sharps						
Identifies contra-indications / circumstances that named nurse must be contacted prior to giving infusion						
Understands the need for monitoring during some IV therapies						

Date of assessment		**Signature**	**NMC Number**
Name of assessor			
Carers Name			

Appendix 7

Individual Treatment Plan for Intravenous Antibiotics

Patient Name:		Start Treatment:
DOB:	D. No.	Finish Treatment
Address:		Length of Course:
		Allergies
GP:		

Prescribed Treatment

AM	Order of Admin	PM	Order of Admin	Medication (Approved Name)	**Dose**	**How Many times a day**	**Time to be given over**	**Route**
				Sodium Chloride	10 mls			IV
				Mix With				IV
				Sodium Chloride	10 mls			IV
				Mix with				IV
				Sodium Chloride	10 mls			IV
				Heparin				IV

	Print name	Signature	
Patient Parent / Carer			
Named Nurse			PIN :

Infusion Pump required **Yes / No** **Pump Serial No.** **Service Due:**

Competency checklist completed and filed in Medical notes **Yes / No**

Record of Drug Levels

Drug to be Monitored	**Pre-dose** Please Tick	**Post-dose** Please Tick	**Date and Time**	**Result**

Lung Function

Date	**FVC**	**% Pred**	**FEV1**	**% Pred**	**02 Sat**

Other Information

Appendix 8

PRESCRIPTION FORM FOR INTRAVENOUS ANTIBIOTICS

South Tees Hospitals
NHS Foundation Trust
JCUH / FHN (delete as appropriate)

Name ---------- Ward ----------
Address ---------- Date of birth ----------
---------- Patient weight ----------

Hospital Number ---------- NHS Number ----------

Consultant in charge ----------

Antibiotic	Dose	Frequency	No of days supply	Pharmacy use only

	Pharmacy use only		
Water for injection	**5ml**		
	10ml		
	20ml		

	** Tick as appropriate	Pharmacy use only	
Line Flushes	**Type of line ****	**Heparin 100iu/ml**	
	Peripheral long line	4mls	
	Portacath	8mls	
	Passport	6mls	

	Dose	Frequency	Pharmacy use only	
Sodium Chloride 0.9%				

Doctors/NMP signature---------- Date ----------

Doctors/MNP name ---------- Bleep No ----------

GMC/NMC No ----------

Julie Pagan Dec 2009

Appendix 9

South Tees Hospitals NHS
NHS Foundation Trust

Date

Dear Doctor

Re:

The above named patient has completed the prescribed course of the following Intravenous Antibiotics by

Dr. ……

Drug	Dose	X/Day	Method of administration

If you require further information please contact

……..

On ……

Thank you

Appendix 10

AUDIT TOOL (1)

Standard Statement (Nurse administration of intra-venous therapy)

The nurse administrating intravenous drugs to children at home will have the skills and support to do so in a safe and effective way.

Target Group	Method	Audit Criteria
Records	Check	Was a Referral form received ?
	Check	Is there a written plan of care?
	Check	Is there evidence that the patient's home has been formally assessed for safety / cleanliness
	Check	Is there evidence that the patient/parent's consent has been obtained ?
Patient/family	Ask	Did the patient/family receive the correct supply of medication and equipment?
	Ask	Did the patient/family know who to contact during a 24 hour period?
	Ask	Did the patient/family receive Venous Access information leaflet ?
	Ask	Did the patient/family receive Adverse reaction information leaflet ?
	Ask	Did the patient/family know how to dispose of the sharps bin?
Records	Check	Were drug levels monitored?
	Check	Is there evidence that the GP has been informed of treatment
	Check	Is there evidence that the patient's Consultant has been informed of treatment

AUDIT TOOL (2)

Standard Statement (Self-administration of intra-venous therapy)

The patient/family participating in self-administration of intravenous drugs at home have the skills and support to administer their own therapy.

Target Group	Method	Audit Criteria
Records	Check	Was a Referral form received ?
	Check	Is there a written plan of care?
	Check	Is there evidence that the patient's home has been formally assessed for safety / cleanliness
	Check	Is assessment criteria and literature available to support teaching, including advice on anaphylaxis?
	Check	Is there evidence that the patient/family has been formally assessed?
	Check	Is there evidence that the patient's response has been recorded?
Patient/Family	Ask	Were the patient/family given the opportunity to discuss the option of self-administration of IV medication at home prior to discharge?
	Ask	Did the patient/family receive the correct supply of medication and equipment?
	Ask	Did the patient/family know who to contact during a 24 hour period?
	Ask	Did the patient/family receive Venous Access information leaflet ?
	Ask	Did the patient/family receive Adverse reaction information leaflet ?
	Ask	Was the patient/family contacted within 72 hours of discharge?
	Ask	Did the patient/family know how to dispose of the sharps bin?
Records	Check	Was the patient clinically assessed throughout the course? (If Applicable)
	Check	Were drug levels monitored?
	Check	Is there evidence that the GP has been informed of treatment
	Check	Is there evidence that the patient's Consultant has been informed of treatment