



**UNIVERSITY COLLEGE DUBLIN**  
*An Coláiste Ollscoile Baile Átha Cliath*  
**UCD SCHOOL OF NURSING, MIDWIFERY & HEALTH SYSTEMS**  
Scoil na hAltrachta, an Cnáimhseachais agus na gCoras Slainte

In partnership with the  
National Maternity Hospital  
and  
Maternity services within the Ireland East Hospital Group  
at  
Regional Hospital Mullingar,  
St Luke's General Hospital Carlow/Kilkenny, Wexford  
General Hospital



UCD Midwifery

**Medication Workbook for Stage 4  
BSc Midwifery Students**

**(Distant Supervision Placements)**

Student Name:

Student Number:



## SIGNATURE BANK

Each registered midwife/nurse who acts as a preceptor/co-preceptor for this student must sign this signature bank.

Preceptors/Co-preceptor Name (Print)	Signature	Preceptors/Co- preceptor Initials	Ward/Area

#### Stage 4 (Distant Supervision)

	Ward/ Department	Duration of Placement
Antenatal		
Intranatal		
Postnatal		

## Introduction

This workbook has been developed as a tool to assist you in gaining knowledge of some of the commonly used medications in your internship placements in Year 4 of the BSc Midwifery programme. It must be completed during each internship practice placement.

In Stage 1, 2 and 4 you participated in lectures and clinical skills in UCD relating to pharmacology, medication administration and professional practice to assist you to link theory to practice. Medication administration and professional practice is an important aspect of your competence assessment and the Principles and Competencies specific to this area specific to this area are detailed in the table below:

<b>Principle 3: Quality of Practice</b>  <b>3.9</b> Demonstrates the ability to safely manage drug administration, monitoring effects and documenting appropriately in accordance with Midwifery Board of Ireland (NMBI) medication administration guidance.	<ul style="list-style-type: none"><li>• Participates with the midwife in the safe management of drug administration, monitoring the effects and documenting appropriately.</li><li>• Explains the importance of monitoring the actions and side-effects of the medication administered.</li><li>• Has knowledge of medication legislation and NMBI guidance on medication management.</li></ul>
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**Year 4 midwifery students should use every opportunity to actively participate with the midwife in the safe management of medication administration, including ordering, calculation, checking and management of medicines. Midwifery students cannot administer any blood products or intravenous medication, however can actively participate with the midwife as a third checker, in the preparation, calculation and titration of intravenous medication and intravenous fluids under direct supervision.**

## Learning Outcomes

**During your internship placements (Level 3 and Level 4), within your midwifery practice, you should be able to:**

- Summarise Nursing and Midwifery Board of Ireland (NMBI) practice guidance used for medication administration (NMBI 2020)
- Summarise NMBI *Code of Professional Conduct and Ethics for Registered Nurses and Registered Midwives* (NMBI 2021). Identify and explain the 10 'Rights' (R's) as per NMBI Guidance for Registered Nurses and Midwives on Medication Administration (NMBI 2020)
- Demonstrate an understanding of the local policies, guidelines and procedures for medication management (including scheduled controlled drugs)
- Demonstrate competent hand decontamination techniques (e.g. hand washing; use of alcohol gel)
- Identify and demonstrate a knowledge of the emergency trolley medications
- Discuss how medications are prescribed (e.g.: on medication record ; discharge prescription pad, electronic maternity record etc.)
- Discuss the steps involved in the safe administration of medication
- Distinguish the types of storage for medications in this area
- Actively participate under supervision in the calculation, preparation and double checking of medications, including identification of the woman/baby, and the administration of medications and explain rationale for this.
- Consider the administration of medications and your time management-what is the impact of one on the other?
- Actively participate in the the correct practice of checking right woman/baby, right reason, right drug, right route, right time, right dose (including calculations), right form, right action, right documentation and right response (NMBI, 2020)
- Take the appropriate action if you encounter a drug prescription that is incorrect or unclear.
- Act appropriately and professionally in the instance of situations such as: client refusal of medications; a medication error and completion of medication error forms should the opportunity arise.

## Instructions for Use

### Part 1: Knowledge of medications

In addition to meeting these learning outcomes you will complete Part 1 of the workbook below in relation to medication management during each internship practice placement.

You will be expected to identify a minimum of **5 different** medications that are commonly used in the placement area.

Include examples of IV / PO / PR /topical/ inhaled / controlled and IM/SC medications.

### Part 2: Student Medication Worksheet

- The '**Core elements of the Medication (Drug) Round**' – Student and preceptor's guide (below) provides you and the RM/RGN with a step-by- step approach to completing medication administration.
- You will be required to participate in the administration of medication **to a minimum of 10 women** per clinical placement (if appropriate as determined by clinical staff). For each of these you will be required to complete a **Student Medication Worksheet**. You and the RM/RGN will sign and date the worksheet.
- The worksheet provides 10 steps that will be assessed on by your RM/RGN before, during and after medication administration.
- It is important that you self-assess your performance and receive written/verbal feedback from your supervising RM/RGN.
- Over the course of the 36 weeks of Internship your level of confidence and competence should increase.

The following explains the requirements for each section of the workbook that is to be completed on each placement

<b>Medication Name</b>	this refers to the approved (generic) name of the medication, which is the name that must be used when the medication is prescribed
<b>Brand/Trade Name</b>	It is common to hear or see medications referred to by their brand name e.g. Panadol for paracetamol. It is important to be aware of the brand and generic name of medications
<b>Medication Group</b>	What group does the medication belong to? Is it an analgesic, anti-hypertensive, anti-pyretic, antibiotic?
<b>Indication</b>	Why is this medication used and for which condition and/or symptoms?
<b>Dose</b>	Doses may vary depending on weight, age, route used or the indications for use.
<b>Route</b>	How should the medication be administered e.g. orally, rectally, intravenously, inhalation, intramuscularly, subcutaneously, intrathecal
<b>Frequency</b>	How often should this medication be administered? What is meant by a 'regular prescription' and a prescription that is 'PRN'? Where possible include the maximum dose in a 24 hour period or highlight the differences in frequency depending on route used.
<b>Peak Action/Duration of Action</b>	For example if analgesia has been administered, how long will it take to work and how long will it last in the patients/clients system?
<b>Contraindications/Cautions/Midwifery Considerations</b>	Extremely important to identify, especially in relation to pregnancy & lactation
<b>Side-Effects</b>	When you know the side-effects you can identify the reason quickly and prevent or manage the side-effect in an effective manner
<b>Actively participates under supervision in preparation, calculation, administration and documentation of medication to woman/baby</b>	Indicate if you have actively participated under supervision in the preparation, calculation, administration and documentation of medication to the woman/baby. Continue to increase your involvement in medication administration whilst working within your scope of practice. Always refer to local Medication Policy for Medication Management and adhere to Local Policy in relation to students and medication.

\*The information you require can be obtained from a few sources including: [www.medicines.ie](http://www.medicines.ie) which contains accurate, up to date, regulator approved information on medicines available in Ireland (Medicines.ie, 2019), Hospital Formulary, The Irish Medicines Formulary, the British National Formulary, the hospital/community pharmacist, doctors, nursing/midwifery colleagues, articles, local hospital policies and guidelines, NMBI & HIQA guidelines and UCD lecture notes on medication administration and pharmacology lecture notes. It is of the utmost importance that there is evidence of the student's on-going understanding with regard to the core elements of medication management as outlined in every phase of his/her programme from Stages 1 to 4

Always refer to the local Medication Policy for Medication Administration and Management.

## CORE ELEMENTS OF MEDICATION (DRUG) ROUND-STUDENT AND PRECEPTOR'S GUIDE

### Communication and Preparation

1. Communicate effectively with the woman.
2. Decontaminate hands in accordance with local policy/ guidelines
3. Ensure that all necessary equipment is available and clean.
4. Use correct technique in dispensing medication.
5. Demonstrate the ability to assess and interpret patient information i.e. vital signs, bowels, pain assessment, blood results and identify appropriate action.
6. Check the woman's/baby's identity: verbally, ID bracelet and medication record.
7. Before administering the medication, consult the woman's/baby's medication record and check the following:-
  - a) Any known allergies
  - b) Medication
  - c) Dose
  - d) Date and duration of prescription
  - e) Route and method of administration
  - f) Frequency of administration/last administered
  - g) Signature of doctor/midwife/nurse prescriber
  - h) Expiry date
8. Administer the medication according to the **10 Rights**:-

• <b>Right</b> patient	• <b>Right</b> drug	• <b>Right</b> dose	• <b>Right</b> documentation
• <b>Right</b> reason	• <b>Right</b> route	• <b>Right</b> form	• <b>Right</b> response
• <b>Right</b> action	• <b>Right</b> time		
9. Ensure that the medicine trolley is not left unattended/unlocked at any stage during or after the medication round.
10. Ensure that the woman has taken medication prior to leaving the woman (offer a drink, if appropriate).
11. Make a clear, accurate and immediate record of medication administered or withheld and rationale for withholding medication.

### Medication Knowledge for the Student

1. Know the normal dose and frequency of medications common to the clinical area.
2. Discuss the midwifery considerations regarding medications common to this clinical area (e.g. adverse effects, contraindications).
3. Can discuss the midwifery considerations for changing the composition of medications, if required (e.g. crushing, breaking, dissolving).
4. Can explain why each patient is prescribed their particular medications.
5. Identify what they would and should do if the patient refused medication or if medication was unavailable and act appropriately.

**Always refer to the local Medication Policy for Medication Management**

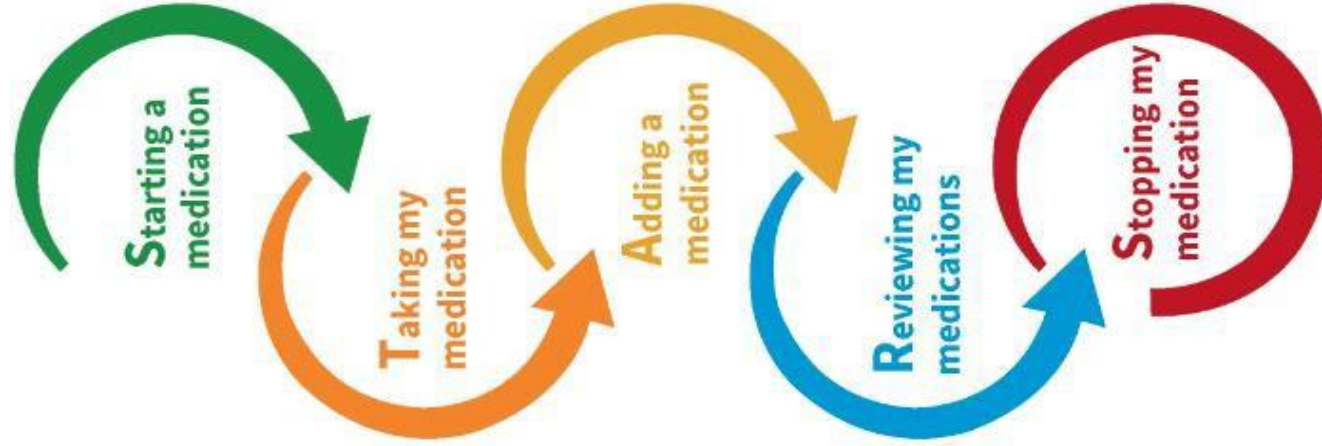




# The Ten Rights of Medication Management



# 5 Moments for Medication Safety



- ▶ What is the name of this medication and what is it for?
- ▶ What are the risks and possible side-effects?
- ▶ Is there another way of treating my condition?
- ▶ Have I told my health professional about my allergies and other health conditions?
- ▶ How should I store this medication?
- ▶ When should I take this medication and how much should I take each time?
- ▶ How should I take the medication?
- ▶ Is there anything related to food and drink that I should know while taking this medication?
- ▶ What should I do if I miss a dose of this medication?
- ▶ What should I do if I have side-effects?
- ▶ Do I really need any other medication?
- ▶ Have I told my health professional about the medications I am already taking?
- ▶ Can this medication interact with my other medications?
- ▶ What should I do if I suspect an interaction?
- ▶ Will I be able to manage multiple medications correctly?
- ▶ Do I keep a list of all my medications?
- ▶ How long should I take each medication?
- ▶ Am I taking any medications I no longer need?
- ▶ Does a health professional check my medications regularly?
- ▶ How often should my medications be reviewed?
- ▶ When should I stop each medication?
- ▶ Should any of my medications not be stopped suddenly?
- ▶ What should I do if I run out of medication?
- ▶ If I have to stop my medication due to an unwanted effect, where should I report this?
- ▶ What should I do with leftover or expired medications?



**Antenatal (Stage 4 Final internship placement)****Part 1: Knowledge of medications**

Identify medications commonly used in this area and complete the information required below in relation to those medications

	Medication Generic/ Trade Name	Medication Group and Indications	Dose and Route	Frequency	Peak Action/ duration of action (If available)	Contraindications/ cautions/ midwifery considerations	Side- effects/adverse reactions	Actively Participates	Staff & student: insert date and Signature
1								Preparation <input type="checkbox"/> Calculation <input type="checkbox"/> Administration <input type="checkbox"/> Documentation <input type="checkbox"/>	
2								Preparation <input type="checkbox"/> Calculation <input type="checkbox"/> Administration <input type="checkbox"/> Documentation <input type="checkbox"/>	

	Medication Generic/ Trade Name	Medication Group and Indications	Dose and Route	Frequency	Peak Action/ duration of action (If available)	Contraindications/ cautions/ midwifery considerations	Side- effects/adverse reactions	Actively Participates	Staff & student: insert date and Signature
3								Preparation <input type="checkbox"/> Calculation <input type="checkbox"/> Administration <input type="checkbox"/> Documentation <input type="checkbox"/>	
4								Preparation <input type="checkbox"/> Calculation <input type="checkbox"/> Administration <input type="checkbox"/> Documentation <input type="checkbox"/>	
5								Preparation <input type="checkbox"/> Calculation <input type="checkbox"/> Administration <input type="checkbox"/> Documentation <input type="checkbox"/>	

## Part 2: Student Medication Administration Worksheet-Final Antenatal Internship Placement (1-5)

Student Name:										
	<u>Date:</u>	<u>Assessor:</u>	<u>Date:</u>	<u>Assessor:</u>	<u>Date:</u>	<u>Assessor:</u>	<u>Date:</u>	<u>Assessor:</u>	<u>Date:</u>	<u>Assessor:</u>
<b>NOTE: One drug round relates to administering medication(s) to one patient.</b>	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No
1. Prepares drug trolley and washes hands.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2. Review order information, drug chart summary, allergies and prescription on the drug chart in the MN-CMS system	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3. Check vital signs, laboratory values, where appropriate	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4. Is knowledgeable about drug name, expected mechanism of the medication. Where to access the information i.e. BNF	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5. Assess patient appropriately prior to administration for possible side effects, signs and symptoms of adverse effects	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6. Knowledgeable about exercising professional judgment in withholding medication and who to consult	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7. Applies the <b>10 Rights</b> : <b>right</b> patient, <b>right</b> reason, <b>right</b> drug, <b>right</b> route, <b>right</b> time, <b>right</b> dose, <b>right</b> form, <b>right</b> action, <b>right</b> documentation, <b>right</b> response	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8. Accurately documents administration of the medication and patient response	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
9. Is knowledgeable about ordering from pharmacy, collecting medication and organising discharge prescriptions	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
10. Is knowledgeable about reporting drug errors and medication information services in pharmacy	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

## Part 2: Student Medication Administration Worksheet-Final Antenatal Internship Placement (6-10)

Student Name:										
	Date:	Assessor:	Date:	Assessor:	Date:	Assessor:	Date:	Assessor:	Date:	Assessor:
<b>NOTE: One drug round relates to administering medication(s) to one patient.</b>	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No
1. Prepares drug trolley and washes hands.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2. Review order information, drug chart summary, allergies and prescription on the drug chart in the MN-CMS system	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3. Check vital signs, laboratory values, where appropriate	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4. Is knowledgeable about drug name, expected mechanism of the medication. Where to access the information i.e. BNF	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5. Assess patient appropriately prior to administration for possible side effects, signs and symptoms of adverse effects	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6. Knowledgeable about exercising professional judgment in withholding medication and who to consult	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7. Applies the <b>10 Rights</b> : <b>right</b> patient, <b>right</b> reason, <b>right</b> drug, <b>right</b> route, <b>right</b> time, <b>right</b> dose, <b>right</b> form, <b>right</b> action, <b>right</b> documentation, <b>right</b> response	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8. Accurately documents administration of the medication and patient response	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
9. Is knowledgeable about ordering from pharmacy, collecting medication and organising discharge prescriptions	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
10. Is knowledgeable about reporting drug errors and medication information services in pharmacy	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**Student Feedback Sheet**

DRUG ADMINIS TRATION	DATE	STUDENT'S COMMENTS	STUDENT'S SIGNATURE	FEEDBACK FROM RM (student can summarise in writing below the oral feedback received)	RM SIGNATURE
1					
2					
3					
4					
5					
6					
7					
8					
9					
10					

**Part 1: Intranatal (Stage 4 Final Internship Placement)****Knowledge of medications**

Identify medications commonly used in this area and complete the information required below in relation to those medications

	Medication Generic/ Trade Name	Medication Group and Indications	Dose and Route	Frequency	Peak Action/ duration of action (If available)	Contraindications/ cautions/ midwifery considerations	Side- effects/adverse reactions	Actively Participates	Staff & student: insert date and Signature
1								Preparation <input type="checkbox"/> Calculation <input type="checkbox"/> Administration <input type="checkbox"/> Documentation <input type="checkbox"/>	
2								Preparation <input type="checkbox"/> Calculation <input type="checkbox"/> Administration <input type="checkbox"/> Documentation <input type="checkbox"/>	



	<b>Medication Generic/ Trade Name</b>	<b>Medication Group and Indications</b>	<b>Dose and Route</b>	<b>Frequency</b>	<b>Peak Action/ duration of action (If available)</b>	<b>Contraindications/ cautions/ midwifery considerations</b>	<b>Side- effects/adverse reactions</b>	<b>Actively Participates</b>	<b>Staff &amp; student: insert date and Signature</b>
<b>3</b>								Preparation <input type="checkbox"/> Calculation <input type="checkbox"/> Administration <input type="checkbox"/> Documentation <input type="checkbox"/>	
<b>4</b>								Preparation <input type="checkbox"/> Calculation <input type="checkbox"/> Administration <input type="checkbox"/> Documentation <input type="checkbox"/>	
<b>5</b>								Preparation <input type="checkbox"/> Calculation <input type="checkbox"/> Administration <input type="checkbox"/> Documentation <input type="checkbox"/>	

## Part 2: Student Medication Administration Worksheet-Final Intranatal Internship Placement (1-5)

Student Name:										
	<u>Date:</u>	<u>Assessor:</u>	<u>Date:</u>	<u>Assessor:</u>	<u>Date:</u>	<u>Assessor:</u>	<u>Date:</u>	<u>Assessor:</u>	<u>Date:</u>	<u>Assessor:</u>
<b>NOTE: One drug round relates to administering medication(s) to one patient.</b>	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No
1. Prepares drug trolley and washes hands.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2. Review order information, drug chart summary, allergies and prescription on the drug chart in the MN-CMS system	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3. Check vital signs, laboratory values, where appropriate	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4. Is knowledgeable about drug name, expected mechanism of the medication. Where to access the information i.e. BNF	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5. Assess patient appropriately prior to administration for possible side effects, signs and symptoms of adverse effects	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6. Knowledgeable about exercising professional judgment in withholding medication and who to consult	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7. Applies the <b>10 Rights</b> : <b>right</b> patient, <b>right</b> reason, <b>right</b> drug, <b>right</b> route, <b>right</b> time, <b>right</b> dose, <b>right</b> form, <b>right</b> action, <b>right</b> documentation, <b>right</b> response	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8. Accurately documents administration of the medication and patient response	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
9. Is knowledgeable about ordering from pharmacy, collecting medication and organising discharge prescriptions	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
10. Is knowledgeable about reporting drug errors and medication information services in pharmacy	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

## Part 2: Student Medication Administration Worksheet-Final Intranatal Internship Placement (6-10)

Student Name:										
	<u>Date:</u>	<u>Assessor:</u>	<u>Date:</u>	<u>Assessor:</u>	<u>Date:</u>	<u>Assessor:</u>	<u>Date:</u>	<u>Assessor:</u>	<u>Date:</u>	<u>Assessor:</u>
<b>NOTE: One drug round relates to administering medication(s) to one patient.</b>	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No
1. Prepares drug trolley and washes hands.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2. Review order information, drug chart summary, allergies and prescription on the drug chart in the MN-CMS system	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3. Check vital signs, laboratory values, where appropriate	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4. Is knowledgeable about drug name, expected mechanism of the medication. Where to access the information i.e. BNF	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5. Assess patient appropriately prior to administration for possible side effects, signs and symptoms of adverse effects	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6. Knowledgeable about exercising professional judgment in withholding medication and who to consult	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7. Applies the <b>10 Rights</b> : <b>right</b> patient, <b>right</b> reason, <b>right</b> drug, <b>right</b> route, <b>right</b> time, <b>right</b> dose, <b>right</b> form, <b>right</b> action, <b>right</b> documentation, <b>right</b> response	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8. Accurately documents administration of the medication and patient response	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
9. Is knowledgeable about ordering from pharmacy, collecting medication and organising discharge prescriptions	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
10. Is knowledgeable about reporting drug errors and medication information services in pharmacy	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

## Student Feedback Sheet

DRUG ADMINIS TRATION	DATE	STUDENT'S COMMENTS	STUDENT'S SIGNATURE	FEEDBACK FROM RM (student can summarise in writing below the oral feedback received)	RM SIGNATURE
1					
2					
3					
4					
5					
6					
7					
8					
9					
10					

**Postnatal (Stage 4 Final Internship Placement)****Part 1: Knowledge of medications**

Identify medications commonly used in this area and complete the information required below in relation to those medications

	Medication Generic/ Trade Name	Medication Group and Indications	Dose and Route	Frequency	Peak Action/ duration of action (If available)	Contraindications/ cautions/ midwifery considerations	Side- effects/adverse reactions	Actively Participates	Staff & student: insert date and Signature
1								Preparation <input type="checkbox"/> Calculation <input type="checkbox"/> Administration <input type="checkbox"/> Documentation <input type="checkbox"/>	
2								Preparation <input type="checkbox"/> Calculation <input type="checkbox"/> Administration <input type="checkbox"/> Documentation <input type="checkbox"/>	

	Medication Generic/ Trade Name	Medication Group and Indications	Dose and Route	Frequency	Peak Action/ duration of action (If available)	Contraindications/ cautions/ midwifery considerations	Side- effects/adverse reactions	Actively Participates	Staff & student: insert date and Signature
3								Preparation <input type="checkbox"/> Calculation <input type="checkbox"/> Administration <input type="checkbox"/> Documentation <input type="checkbox"/>	
4								Preparation <input type="checkbox"/> Calculation <input type="checkbox"/> Administration <input type="checkbox"/> Documentation <input type="checkbox"/>	
5								Preparation <input type="checkbox"/> Calculation <input type="checkbox"/> Administration <input type="checkbox"/> Documentation <input type="checkbox"/>	

## Part 2: Student Medication Administration Worksheet-Final Postnatal Internship Placement (1-5)

Student Name:										
	<u>Date:</u>	<u>Assessor:</u>	<u>Date:</u>	<u>Assessor:</u>	<u>Date:</u>	<u>Assessor:</u>	<u>Date:</u>	<u>Assessor:</u>	<u>Date:</u>	<u>Assessor:</u>
<b>NOTE: One drug round relates to administering medication(s) to one patient.</b>	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No
1. Prepares drug trolley and washes hands.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2. Review order information, drug chart summary, allergies and prescription on the drug chart in the MN-CMS system	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3. Check vital signs, laboratory values, where appropriate	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4. Is knowledgeable about drug name, expected mechanism of the medication. Where to access the information i.e. BNF	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5. Assess patient appropriately prior to administration for possible side effects, signs and symptoms of adverse effects	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6. Knowledgeable about exercising professional judgment in withholding medication and who to consult	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7. Applies the <b>10 Rights</b> : <b>right</b> patient, <b>right</b> reason, <b>right</b> drug, <b>right</b> route, <b>right</b> time, <b>right</b> dose, <b>right</b> form, <b>right</b> action, <b>right</b> documentation, <b>right</b> response	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8. Accurately documents administration of the medication and patient response	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
9. Is knowledgeable about ordering from pharmacy, collecting medication and organising discharge prescriptions	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
10. Is knowledgeable about reporting drug errors and medication information services in pharmacy	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

## Part 2: Student Medication Administration Worksheet-Final Postnatal Internship Placement (6-10)

Student Name:	<u>Date:</u> <u>Assessor:</u>		<u>Date:</u> <u>Assessor:</u>		<u>Date:</u> <u>Assessor:</u>		<u>Date:</u> <u>Assessor:</u>		<u>Date:</u> <u>Assessor:</u>	
<b>NOTE: One drug round relates to administering medication(s) to one patient.</b>	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No
1. Prepares drug trolley and washes hands.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2. Review order information, drug chart summary, allergies and prescription on the drug chart in the MN-CMS system	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3. Check vital signs, laboratory values, where appropriate	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4. Is knowledgeable about drug name, expected mechanism of the medication. Where to access the information i.e. BNF	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5. Assess patient appropriately prior to administration for possible side effects, signs and symptoms of adverse effects	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6. Knowledgeable about exercising professional judgment in withholding medication and who to consult	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7. Applies the <b>10 Rights</b> : <b>right</b> patient, <b>right</b> reason, <b>right</b> drug, <b>right</b> route, <b>right</b> time, <b>right</b> dose, <b>right</b> form, <b>right</b> action, <b>right</b> documentation, <b>right</b> response	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8. Accurately documents administration of the medication and patient response	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
9. Is knowledgeable about ordering from pharmacy, collecting medication and organising discharge prescriptions	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
10. Is knowledgeable about reporting drug errors and medication information services in pharmacy	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>



**Student Feedback Sheet**

DRUG ADMINISTRATION	DATE	STUDENT'S COMMENTS	STUDENT'S SIGNATURE	FEEDBACK FROM RM (student can summarise in writing below the oral feedback received)	RM SIGNATURE
1					
2					
3					
4					
5					
6					
7					
8					
9					
10					

# Adult Peripheral Intravenous Cannulation Programme



## Adult Peripheral Intravenous Cannulation Programme BSc Midwifery and HDip Midwifery Students

The Nursing and Midwifery Board of Ireland outline in the Midwife Registration Programme Standards and Requirements that students should gain experience of adult peripheral intravenous cannulation during their midwifery registration education programme (NMBI, 2022). This document outlines the standardised approach that is taken to the education, training, and competence validation for UCD Midwifery students in adult peripheral intravenous cannulation. This approach follows the guiding framework for education, training and competence validation in venepuncture and peripheral intravenous cannulation for Nurses and Midwives (HSE/ONMSD, 2017), the addendum for BSc Midwifery students (HSE/ONMSD, 2020a) and the addendum for HDip Midwifery students (HSE/ONMSD, 2020b). The peripheral intravenous cannulation programme for BSc Midwifery and HDip Midwifery students is delivered in partnership with the National Maternity Hospital who will account for practice assessments in the clinical area. Midwifery students are required to adhere to the local hospital policies, procedures, protocols and guidelines in relation to adult peripheral intravenous cannulation.

### **Note regarding flushing the IV cannula**

Part of the procedure for insertion of a peripheral intravenous cannula involves administration of intravenous fluid without additives (0.9% NaCl) to flush the cannula at the point of insertion. **Midwifery students are only permitted to flush intravenous cannulae under supervision** as part of the peripheral intravenous cannula insertion procedure, according to local policies, protocols, procedures, and guidelines (HSE/OMNSD, 2020a; 2020b). **Midwifery students are not permitted to administer intravenous fluids, either with or without additives, at any other time during their midwifery registration education programme.**

### **Prerequisites**

Students must first be certified as competent in adult venepuncture before they can proceed to the adult peripheral intravenous cannulation programme.

## Learning Outcomes

At the end of this programme, participants will:

- Be able to identify the anatomical structures and appropriate choice of sites applicable to intravenous cannulation
- Describe the role of the midwife in undertaking the skill of peripheral cannulation
- Outline the indications for peripheral intravenous cannulation
- Communicate with women and their families to facilitate safe and effective peripheral intravenous cannulation
- Demonstrate knowledge of:
  - Procedure preparation and how to gain informed consent
  - The effective technique for the procedure
  - The documentation and management of complications
- Practice under appropriate supervision for their level
- Maintain competence in accordance with scope of practice and local hospital policy

## The theoretical components of the programme are administered by UCD as follows:

1. The midwifery student must access the learner handbook via Brightspace
2. The midwifery student completes the theoretical component of the blended learning programme e-learning module online via [www.hseland.ie](http://www.hseland.ie).
3. The student midwife must successfully complete the online self- assessment test at the end of the e-learning module on HSEland.
4. Certificates of completion are uploaded to the assessment folder in Brightspace, and the midwifery student will then be permitted to attend the adult peripheral intravenous cannulation clinical skills workshop.
5. The midwifery student attends the clinical skills workshop. Students will be given the opportunity to practice adult peripheral intravenous cannulation skills and will be assessed by facilitators. If a student is unsuccessful in this assessment, an action plan is agreed with the facilitator and the assessment will be repeated. Students must achieve a pass in this clinical skills assessment in order to progress to the clinical practice assessments.
6. Once a pass has been achieved, the facilitator will record this outcome in Brightspace and will also sign the following page in the clinical experience record book: Adult Peripheral Intravenous Cannulation –Record of Supervised Practice and Competence Assessment
7. A certificate of completion for the theoretical components of the programme will be emailed to each student via Brightspace.
8. The midwifery student may now proceed to clinical practice assessments on their next clinical placement.

**The clinical practice and competency assessment component of the programme is administered by the clinical partner site as follows:**

1. The midwifery student should observe two intravenous cannulation procedures in the clinical area before proceeding to supervised practice.
2. The midwifery student undertakes 5 successful supervised practice assessments, followed by the final competency assessment. Clinical assessors must be certified and competent in adult peripheral intravenous cannulation. Midwifery students may not assess other midwifery students.
3. If unsuccessful in the competency assessment, the student is referred to the clinical placement co-ordinator (BSc) / clinical co-ordinator (HDip) and an action plan is agreed. Once the components of the action plan have been completed then the midwifery student restarts the clinical practice assessments and repeats all 5 successfully before proceeding to the competency assessment.
4. The practice assessments and final competency assessment should be completed within 12 weeks. If more than 12 weeks lapse, the student must re-do the HSEland elearning module and submit evidence of this with their clinical practice assessment form. If the student requires additional learning support, they should contact their clinical placement co-ordinator (BSc) / clinical co-ordinator (HDip).
5. Once the competency assessment is complete, the midwifery student should inform their clinical Placement co-ordinator or clinical co-ordinator. If the form is completed correctly, they will then sign the appropriate section in both the form itself and the record of workshops, mandatory education and training
6. If the student midwife wishes to obtain a certificate of completion, they should request this from the Education and Practice Development Dept in the National Maternity Hospital.

### **Maintenance of competence**

Upon completion of the skill pathway, midwifery students should continue to maintain competence under appropriate supervision for their level of clinical placement, in collaboration with their preceptor (according to hospital policy).

### **References**

HSE/ONMSD (2017) *Guiding Framework for the Education, Training and Competence Validation in Venepuncture and Peripheral Intravenous Cannulation for Nurses and Midwives*. Dublin: Health Service Executive.

HSE/ONMSD (2020a) *Skill Pathway for Venepuncture and/or Peripheral Intravenous Cannulation for Pre-Registration Undergraduate Nursing and Midwifery students during Internship Period*. Dublin: Health Service Executive.

HSE/ONMSD (2020b). *Skill Pathway for Venepuncture and/or Peripheral Intravenous Cannulation for students undertaking the Post RGN Midwife Registration Education Programme – Higher Diploma in Midwifery (draft)*. Dublin: Health Service Executive.

NMBI (2015) *Scope of Nursing and Midwifery Practice Framework*. Dublin: Nursing and Midwifery Board of Ireland  
NMBI (2016) *Midwife Registration Programmes Standards and Requirements*. Dublin: Nursing and Midwifery Board of Ireland

**Adult Peripheral Intravenous Cannulation-Record of Supervised Practice and Competence Assessment**

I am satisfied that (print name) _____ has completed the necessary adult IV cannulation theory programme, attended the clinical skills lab and is now eligible to proceed to supervised practice assessments.								
<b>UCD Tutor (print):</b>			<b>UCD Tutor (sign):</b>			<b>Date:</b>		
<b>Date Practice Assessments Stated:</b>			<b>Date Competency Achieved:</b>					
The student must be able to discuss the rationale for each of the actions and demonstrate competence in the practical					<b>5 Supervised Practice Assessments</b>		<b>Competence assessment</b>	
					Achieved - ✓ Not Achieved - X			
<b>Skill Required</b>					1	2	3	4
					5	Pass		Refer
A	Perform hand hygiene as per WHO 5 moments for hand hygiene							
B	Check correct identification of patient and any allergies the patient has e.g. to tape or skin cleaning solutions							
C	Gain verbal consent. Ensure appropriate preparation of and communication with patient throughout procedure							
D	Correct positioning of patient and preparation of environment							
E	Considers personal safety and that of others e.g. use of PPE etc.							
F	Selects appropriate vein site and equipment for procedure							
G	Provides local anaesthesia (as per organisation policy)							
H	Completes cannula insertion correctly and safely, including drawing up and administration of 0.9% NaCL flush							
I	Secures and anchors cannula safely and effectively							
J	Demonstrates appropriate troubleshooting techniques if required							
K	Demonstrates aseptic non touch technique, throughout the Procedure							
L	Demonstrates disposal of sharps and equipment correctly and safely							
M	Demonstrates appropriate decontamination of equipment used (as per TP&C)							
N	Completes documentation in healthcare records (as per healthcare organisation policy)							
<b>Initial of Clinical Assessor:</b>								
<b>Initial of Student Midwife:</b>								
<b>Date:</b>								
<b>Final Outcome of Competence Assessment (tick ✓)</b>					<i>Print name and sign below to validate final outcome</i>			
<b>Student Midwife (print):</b>					<b>Initials:</b>		<b>NMBINO:</b>	
<b>Clinical Assessor (print):</b>					<b>Initials:</b>		<b>NMBINO:</b>	
Note of action plan if referred for further assessment:								
<b>Action Plan Agreed (sign if applicable)</b>					<b>Student Midwife:</b>		<b>Clinical Assessor:</b>	
					<b>Date:</b>		<b>Tick Box</b>	
I have read name of Organisation					relevant policies, procedures, protocols and guidelines			
I have read the "Code of Professional Conduct and Ethics for Registered Nurses and Registered Midwives" (NMBI 2014)								
I have read the "Scope of Nursing and Midwifery Practice Framework" (NMBI 2015)								
The assessments were completed within 12 weeks. if not I have retaken the HSE and e-learning programme								
I understand that I am only permitted to administer intravenous fluid without additive (0.9% NaCL) under supervision for the purpose of flushing of the cannula as part of the insertion Procedure, and not at any other time								
Competence agreed for peripheral IV cannulation: I agree to maintain my clinical competence in peripheral IV cannulation in line with the "Scope of Nursing and Midwifery Practice Framework" (NMBI 2015)								
<b>Student Midwife (sign):</b>					<b>Clinical Assessor (sign):</b>		<b>Date:</b>	
I am satisfied that the above named student has completed the supervised practice and the competence assessment								
<b>CPC/CC (print):</b>					<b>CPC (sign):</b>		<b>Date:</b>	

*Adapted/Tom (1997) Guiding Framework for the Education, Training and Competence Validation in Venepuncture and Peripheral Intravenous Cannulation for Nurses and Midwives*

### Suggested reading:

- Berman, A. and Synder, S. (2012) *Kozier & Erb's fundamentals of Nursing: Concepts, Process and Practice*. 9<sup>th</sup> edn., New Jersey: Pearson Prentice Hall.
- Brady, A., Malone, A. and Fleming, S. (2009) 'A literature review of the individual and systems factors that contribute to medication errors in nursing practice', *Journal of Nursing Management*, 17, pp.679- 697.
- Dougherty, L., Lister, S., and West-Oram A. (eds) (2015) *The Royal Marsden Hospital Manual of Clinical Nursing Procedures*. 9<sup>th</sup> edn., Oxford: Wiley Blackwell Publishing.
- Drach-Zahavy, A. and Pud, D. (2010) 'Learning mechanisms to limit medication administration errors', *Journal of Advanced Nursing*, 66(4),pp.794-805.
- Gatford,D.J; Philips, N.(2016) *Nursing Calculations*, Elsevier, London
- Health Information and Quality Authority (2015) *Medicines Management Guidance*. Dublin: Health Information and Quality Authority
- Health Products Regulatory Authority (2014) *Safety Information*. Available online: <http://www.hpra.ie/homepage/medicines/safety-information>
- Jones, S.W. (2009) 'Reducing medication administration errors in nursing practice', *Nursing Standard*, 23 (50), pp40-46.
- Jordan, S., (2010) *Pharmacology for Midwives: The Evidence Base for Safe Practice*. 2nd Edition. Palgrave Macmillan
- Nursing and Midwifery Board of Ireland (2015) *Scope of Nursing and Midwifery Practice Framework*. Dublin: NMBI.
- Nursing and Midwifery Board of Ireland (2020) Guidance for Registered Nurses and Midwives on Medication Administration. Available at: <https://www.nmbi.ie/Standards-Guidance/Medicines-Management> (Accessed 1 September 2020)
- Reid-Searl, K., Moxham, L. and Happell, B. (2010) 'Enhancing patient safety: The importance of direct supervision for avoiding medication errors and near miss by undergraduate nursing students', *International Journal of Nursing Practice*, 16,pp.225-232.
- Royal Pharmaceutical Society of Great Britain (2011) \* Available online at: <http://www.bnf.org/bnf/index.htm>. (Accessed: 21 March 2012)
- World Health Organizations (2019) 5 Moments for medication safety, Available at: <https://www.who.int/patientsafety/medication-safety/5moments/en/> (Accessed: 09<sup>th</sup> October, 2019)

### Useful websites

Nursing and Midwifery Board of Ireland (2020) Guidance for Registered Nurses and Midwives on Medication Administration. Available at: <https://www.nmbi.ie/Standards-Guidance/Medicines-Management> (Accessed 1 September 2020)

Drug calculations quiz page (page (2018) Available at: <http://www.testandcalc.com/quiz/index.asp> (Accessed 14 August 2018)

Dosagehelp.com (2018) Available online at: <http://www.dosagehelp.com/> (Accessed: 30th August 2018)

Queens University Belfast, Numeracy Skills for Drug Calculations, Available at: <https://www.qub.ac.uk/elearning/public/NumeracySkillsforDrugCalculations/> (Accessed: 09th October 2019)

Drug calculations quiz page (page (2018) Available at: <http://www.testandcalc.com/quiz/index.asp> (Accessed 14 August 2018)

World Health Organizations (2019) 5 Moments for medication safety, Available at: <https://www.who.int/patientsafety/medication-safety/5moments/en/> (Accessed: 09th October 2019)

# Commonly Used Medication Calculations

## Section 1: Converting Metrics Units

- 1gram(**g**)= 1000 milligram(**mg**)= 1,000,000 microgram(**mcg**)
- 1**mg**= 1000 microgram (**mcg**) = 0.001**g**
- 1**mcg** = 0.001**mg**
- 1 litre (**L**) = 1000 millilitres (**ml**)
- 1 Kilogram (**kg**)= 1000 grams (**g**)

### Formula: Converting Metric Units

To convert grams (large) to milligrams (small), multiply by 1000 or move the decimal point 3 places to the right

To convert milligrams (small) to grams (large), divide by 1000 or move the decimal point 3 places to the left

### Example:

3gram(**g**)=? Milligrams (**mcg**)

$$3 \times 1000 = 3000 \text{ milligrams (mcg)}$$

6milligrams(**mcg**)=? Grams (**g**)

$$6 \div 1000 = 0.006 \text{ grams (g)}$$

## Section 2: Expressing Drug Concentrations as percentages:

- Percentages refer to parts of 100
- 1% Solution is 1g in 100mls **or** 1ml in 100mls
- 0.05% solution is 0.05g(50mg) in 100mls **or** 0.05ml in 100ml

### Example:

Magnesium sulphate 1g is prescribed. Magnesium sulphate 50% amps available (2ml size). How many mls of injection is needed to obtain 1g?

50% in 50g in 100mls= 0.5g in 1ml

Therefore, 1g is in 2ml

## Section 3: Expressing Drug Concentration as ratio:

- 1 in 100: 1ml in 100ml/1g in 100ml
- 1 in 1000: 1ml in 1000ml/1g in 1000ml

### Example:

Adrenaline injection 1:1000

Contains 1g in 1000mls = 1000 mg in 100mls = 1mg in 1ml



#### Section 4: Calculating volume of tablets, liquid or injection required to get a particular dose of medication:

$$\text{Volume required} = \frac{\text{What you want (dose)} \times \text{Volume you have (tablets/ml)}}{\text{What you have (stock strength)}}$$

N.B. Make sure all the units are the same.

\*This is the most common medication formula you will come across, it may appear as above in either format. You can use either just make sure all the units are the same

Example:

Patient is prescribed Erythromycin 500mgs . Erythromycin is stocked in 1 Gram in 10ml ampule. To calculate the required dose:

$$\frac{\text{What you want (500 mgs)}}{\text{What you have (1000 mgs)}} \times \frac{\text{Volume you have (10)}}{1(\text{one})} = \text{Volume to be administered 5ml}$$

N.B. Make sure all the units are the same.

## Section 5: Setting Infusions: when using drops per minute

Setting the infusion in drops per minute:

$$\text{Drops per minute} = \frac{\text{mls to be infused} \times \text{drops per ml}}{\text{Number of hours} \times 60\text{min}}$$

- Always check the drops per 1ml on the infusion package before setting up infusion!!!  
(Blood giving sets are often different)

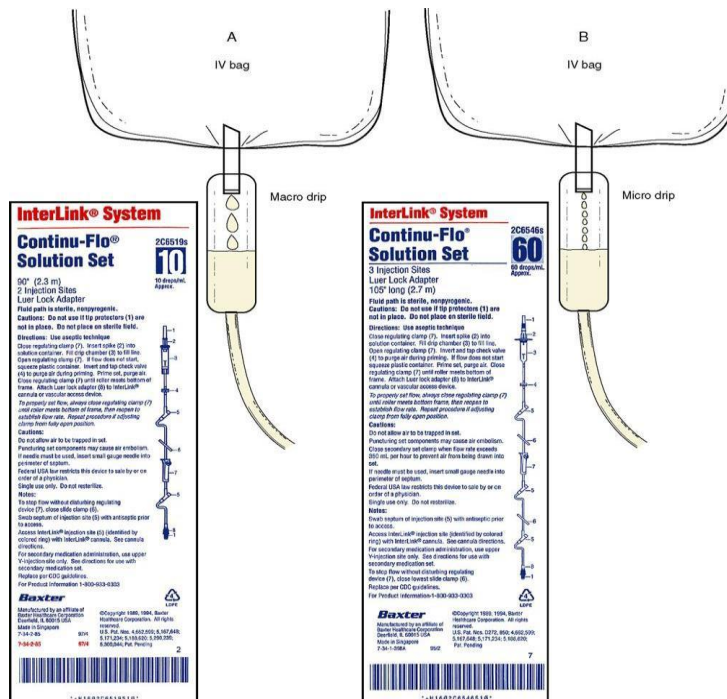


Diagram demonstrates:

- Giving set A has a drop rate of 10 drops per 1ml
- Giving set B has a drop rate of 60 drops per 1ml
- Giving set C has a drop rate of 20 drops per 1ml



Example:

1000mls Nacl 0.9% over 12 hrs

\*Drops per ml in giving set is 20

Therefore, to calculate the drop rate per minute

$$\text{Drops per minute} = \frac{\text{mls to be infused (1000mls)}}{\text{Number of hours (12 hrs)}} \times \frac{\text{drops per ml (20)}}{60\text{min}}$$

$$= 20,000 \div 720 \text{ mins} = 27.777 = 28 \text{ drops per minute}$$

Calculating the number of milliliters per hour to be infused using a pump

$$\text{Rate (ml/hr)} = \frac{\text{Volume(mls)}}{\text{Time (hr)}}$$

Example:

1000mls Nacl 0.9% over 12 hrs

Therefore, to calculate number of millilitres per hour

$$\text{Rate (ml/hr)} = \frac{\text{Volume (1000mls)}}{\text{Time (12 hrs)}}$$

$$= 1000 / 12 = 83.333 = 83 \text{ ml/hr}$$

Calculating dosages by body weight

$$\text{Body Weight (kg)} \times \text{amount of drug per kg} = \text{dose required}$$

Example:

Gentamicin is prescribed 3mg/kg. what is the dose of a patient who weighs 65kg?

Step 1: Body Weight (kg) x amount of drug per kg = dose required

Step 2: 65(kg) x 3mg per kg = 195mg

