

RECOVERY PAIN PROTOCOL - PAEDIATRIC RECOVERY - SCH

PRACTICE GUIDELINE [®]

DOCUMENT SUMMARY/KEY POINTS

This document replaces **SCH.C.7.R.1 Recovery Pain Protocol**.

It should be read in conjunction with the following SCH facility documents:

- [Intravenous Opioid Infusions – SCH](#)
- [Patient Controlled Analgesia \(PCA\) - SCH](#)
- [Safe Prescribing - SCHN](#)

This protocol is for **children 6 months and over** who require IV analgesia in Recovery.

- Recovery Pain Protocol must be:
 - prescribed by the Anaesthetist on the PRN section of the paediatric National Inpatient Medication Chart (pNIMC)
 - prepared labelled and administered by a Registered Nurse who has achieved competency in Intravenous Opioid/PCA
 - checked and observed by a second nurse.
- All prepared opioid solution must be clearly labelled with patient details, dose and concentration according to national labelling standards:
<http://intranet.schn.health.nsw.gov.au/medication-safety/line-labelling-standard>
- The prescribed opioid dose is made up to 10mL so the concentration is approximately:
 - Morphine 10 microg/kg/mL
 - Fentanyl 0.4 microg/kg/mL
- Pain Protocol is to be administered via the proximal injection site or three way tap.

This document reflects what is currently regarded as safe practice. However, as in any clinical situation, there may be factors which cannot be covered by a single set of guidelines. This document does not replace the need for the application of clinical judgement to each individual presentation.

Approved by:	SCHN Policy, Procedure and Guideline Committee	
Date Effective:	1 st July 2018	Review Period: 3 years
Team Leader:	NUM	Area/Dept: Recovery

- Children between the ages of 6 months and 1 year may receive a maximum of 5 Push Doses.
- Children 1 year and over may receive a maximum of 7 push doses.
- Further doses should only be administered after the child has been reviewed by the anaesthetist.
- Oximetry must be in place to continuously monitor oxygen saturation and pulse rate.
- Two nurses, one of whom is a Registered Nurse, are to witness the discarding of any opioid, and document this discard in the drug register.
- Medication Endorsed Enrolled Nurses may witness preparation, administration and discarding of Schedule 8 medications.

CHANGE SUMMARY

Document reviewed and transferred SCHN Network Style:

- Document reviewed and links updated.
- Maximum number of push doses for children 1 year and older changed to a maximum of 7 doses before review by the anaesthetist
- New clause 10. Under Standards. "All Pain Protocol administrations should be followed by a 0.9% sodium chloride flush to ensure that the entire dose has cleared the injection port in the IV line or the cannula if no infusion is running"
- Update to reflect NSW Ministry of Health PD2013_043 Section 6.13.2 Witness to Schedule 8 medication transactions; Endorsed Enrolled Nurses who have been accredited by SCH may witness the administration and discarding of Schedule 8 medications.

This document reflects what is currently regarded as safe practice. However, as in any clinical situation, there may be factors which cannot be covered by a single set of guidelines. This document does not replace the need for the application of clinical judgement to each individual presentation.

Approved by:	SCHN Policy, Procedure and Guideline Committee	
Date Effective:	1 st July 2018	Review Period: 3 years
Team Leader:	NUM	Area/Dept: Recovery

READ ACKNOWLEDGEMENT

SCH Paediatric Recovery nurses, Anaesthetists and Anaesthetic Registrars, must have a clear understanding of this guideline.

Prior to undertaking procedures outlined in this guideline registered nurses must undertake local training and competency assessment as specified above.

Mandatory Read Acknowledgement

- All Paediatric Recovery nurses will read and acknowledge this document to local NUM.

Discretionary Read Acknowledgement:

- Head of Department *Anaesthetics and Pain* to determine which staff are to read and acknowledge the document.

Line managers are to maintain records of staff read acknowledgements for quality review and compliance audit processes.

Information on systems of staff notification and read acknowledgement are available at: http://chw.schn.health.nsw.gov.au/o/groups/ppc/resources/staff_notification_records_-_information_sheet.pdf –

This document reflects what is currently regarded as safe practice. However, as in any clinical situation, there may be factors which cannot be covered by a single set of guidelines. This document does not replace the need for the application of clinical judgement to each individual presentation.

Approved by:	SCHN Policy, Procedure and Guideline Committee	
Date Effective:	1 st July 2018	Review Period: 3 years
Team Leader:	NUM	Area/Dept: Recovery

TABLE OF CONTENTS

Definitions.....	5
Introduction	5
Standard.....	5
Observations	6
Complications	7
Discharge from Recovery	7
Outcome.....	7
Recovery Pain Protocol - Flowchart	8
References.....	9
Bibliography	9

Definitions

- A **Bolus Dose** is that given for inadequate pain relief whilst an opioid infusion is in progress (see Intravenous Opioid Infusion guideline for details)
- A **Push Dose** is that given in recovery only for pain relief or sedation as per this guideline
- pNIMC: paediatric National Inpatient Medication Chart
- PRN: "when necessary", the PRN section is located on the back of the pNIMC

Introduction

The recovery pain protocol is for **children 6 months and over** who require intravenous analgesia in Recovery.

They are grouped as follows:


- Children not prescribed an opioid infusion or PCA
- Children prescribed both an opioid infusion or a PCA can have pain protocol prior to commencement of infusion or PCA

Standard

- The Schedule 8 medications in the Recovery Pain Protocol must be prescribed by the Anaesthetist on the PRN section of the pNIMC as:
(0.1 mg/kg) morphine in 10mL 0.9% sodium chloride as per Recovery Pain Protocol,
OR

(4 microg/kg) fentanyl in 10mL 0.9% sodium chloride as per Recovery Pain Protocol

The maximum number of doses must be specified on the prescription. See example prescription below:

Date	Medicine (Print Generic Name)		
7/4/16	Fentanyl Recovery Pain Protocol		
Route	DOSE	Hourly Frequency	Max PRN Dose/24 hrs
IV	12microg	5 mins	120 microg
Pharmacy/Additional Information			
120 microg in 10mls 0.9% Sodium Chloride			
Indication	DOSE Calculation (eg. mg/kg per dose)		
Pain	Pain protocol guideline		
Prescriber Signature	Print Name	Contact/Pager	
	Brad Hand	45678	

Example Prescription: Fentanyl order per Recovery Pain Protocol

- Registered Nurses who are working in Paediatric or Adult recovery (after hours) who have achieved competency in Intravenous Opioid/PCA administration are permitted to administer opioids as per Recovery Pain Protocol.
- The protocol must:

- Be checked, prepared and labelled² by an accredited Registered Nurse as in Standard 2 (above) and,
 - Be checked and observed by a second nurse¹
4. The prescribed opioid dose is made up to 10mL with 0.9% sodium chloride such that the concentration is approximately:
- Morphine 10 microg/kg/mL
 - Fentanyl 0.4 microg/kg/mL

The opioid of first choice is morphine with a suitable alternative being fentanyl. The use of fentanyl at the recommended doses may require a greater initial loading dose due to conservative recommendations and pharmacokinetic considerations. In some instances the anaesthetist may prescribe/request 1 - 2 mL for the initial dose.

5. Children between the ages of 6 months and 1 year may receive a maximum of 5 push doses. Further doses may be required due to conservative dosing; however the anaesthetist should be consulted to review the child.
6. Children 1 year and over may receive a maximum of 7 push doses. Further doses may be required due to conservative dosing; however the anaesthetist should be consulted to review the child.
7. Intravenous opioids given as a push dose should be given over a period of at least 30 seconds.
8. Any prepared opioid must be clearly labelled with patient details, dose and concentration in accordance with [national labelling standards](#).
9. Recovery Pain Protocol is to be administered via the closest injection site to the patient or a three way tap attached to the IV line
10. All Pain Protocol administrations should be followed by a 0.9% sodium chloride flush to ensure that the entire dose has cleared the injection port in the IV line or the cannula if no infusion is running.
11. Two nurses, one of whom must be a Registered Nurse, are to witness the discarding of any opioid, and document this discard in the drug register.
12. Medication Endorsed Enrolled Nurses who have been accredited by SCH may witness the administration and discarding of Schedule 8 medications as outlined in Enrolled Nurse (EN): Scope of Practice – SCHN
<http://webapps.schn.health.nsw.gov.au/epolicy/policy/3672>.

Observations

Oximetry must be in place to continuously monitor oxygen saturation and pulse rate on arrival to recovery. Take blood pressure (where appropriate) at commencement of the Recovery Pain Protocol. Pulse and respirations are to be taken five and ten minutes after the administration of each pain protocol dose.

Complications

Complications that should be notified to the prescribing anaesthetist or anaesthetic registrar on duty include:

- Respiratory depression
- Over-sedation
- Poor pain control
- Nausea and vomiting
- Urinary retention
- Pruritis
- Hypotension
- Myoclonic jerks

Should emergency procedures be required these must be activated via the emergency call button and managed under Operating Suite emergency response protocols.

Discharge from Recovery

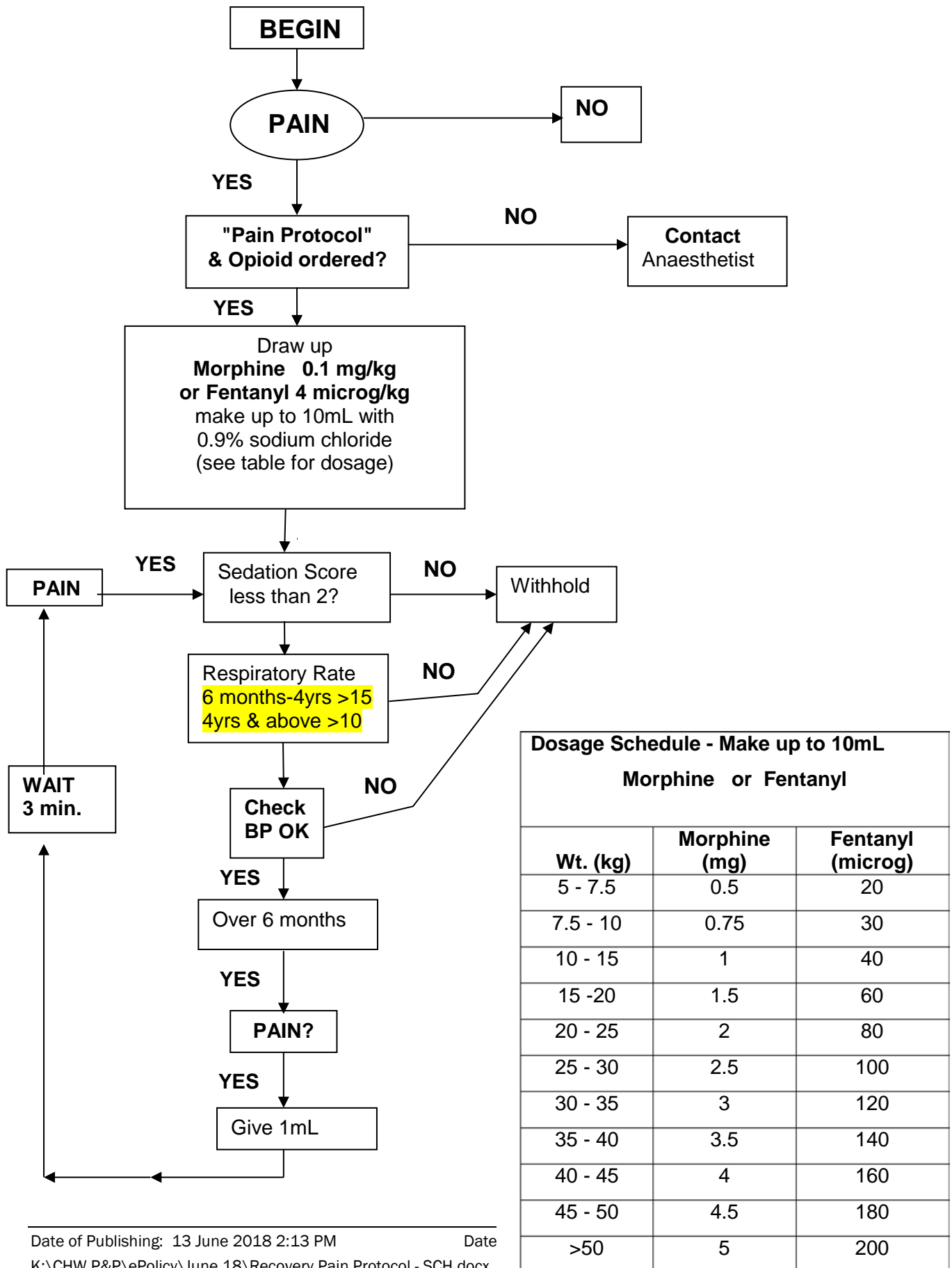
A patient may be discharged from Recovery after a further 20 minutes of observations are performed following the last administered opioid dose. The patient must not require any further opioid doses, exhibit signs of adverse effects from the opioid and must meet all recovery discharge criteria. Please see Post Operative Care in PACU-SCH Practice Guideline for discharge criteria: <http://webapps.schn.health.nsw.gov.au/epolicy/policy/3464>

The pNIMC order for the Recovery Pain Protocol must clearly show the order is no longer current. Recovery nurses should document the discard volume on the administration section of the pNIMC order to prevent erroneous use outside Recovery.

Outcome

The goal of Recovery Pain Protocol is to provide safe and effective pain relief in the immediate post-operative period.

Recovery Pain Protocol - Flowchart



Dosage Schedule - Make up to 10mL Morphine or Fentanyl		
Wt. (kg)	Morphine (mg)	Fentanyl (microg)
5 - 7.5	0.5	20
7.5 - 10	0.75	30
10 - 15	1	40
15 - 20	1.5	60
20 - 25	2	80
25 - 30	2.5	100
30 - 35	3	120
35 - 40	3.5	140
40 - 45	4	160
45 - 50	4.5	180
>50	5	200

References

1. NSW Ministry of Health PD2013_043. "Medication Handling in NSW Public Health Facilities"
http://www1.health.nsw.gov.au/pds/ActivePDSDocuments/PD2013_043.pdf
2. NSW Ministry of Health Policy Directive PD2016_058 User applied Labelling of Injectable Medicines, Fluids and Lines
http://www1.health.nsw.gov.au/pds/ActivePDSDocuments/PD2016_058.pdf

Bibliography

3. Aubrun F, Valade N, Riou B. 2004. Intravenous morphine titration. *Annales Francaises d Anesthesie et de Reanimation*, 23:10; 973-985 .
4. Australian and New Zealand College of Anaesthetists & Faculty of Pain Medicine. 2010 Acute pain management: Scientific evidence (3rd Ed). *National Health and Medical Research Council*: Canberra.
5. Macintyre, P. 2001 *Acute pain management: a practical guide*, 2nd edn. W.B. Saunders Co
6. The Prince Henry and Prince of Wales Clinical Manual. 1999. 8.E. *Immediate post-operative pain management in recovery: Standards and protocol*.

Copyright notice and disclaimer:

The use of this document outside Sydney Children's Hospitals Network (SCHN), or its reproduction in whole or in part, is subject to acknowledgement that it is the property of SCHN. SCHN has done everything practicable to make this document accurate, up-to-date and in accordance with accepted legislation and standards at the date of publication. SCHN is not responsible for consequences arising from the use of this document outside SCHN. A current version of this document is only available electronically from the Hospitals. If this document is printed, it is only valid to the date of printing.