

Pan-London Symptom Control Medication Authorisation and Administration Record (MAAR) chart

Outline

- Rationale and development process of MAAR chart
- Indications for sc medications / syringe driver
- Principles of clinical care
- Outline of resources
- Chart structure



Rationale and development of chart

Rationale:

Standardised record in all community settings in London
Reduce clinical risk, build staff confidence
Support transfer of care between settings, and of all HCPs
Build on / develop charts already in use / being developed

Development Process – May 2019 onwards:

Led by NHSE/I London EOLC Clinical Network
Pan-London, multi-professional steering group and working groups.
Multiple iterations and reviews, with expert advice as needed.
Ratification and publication by London Clinical Advisory Group – May 2020
Version 2 – developed in response to early feedback – June 2020

NCL:

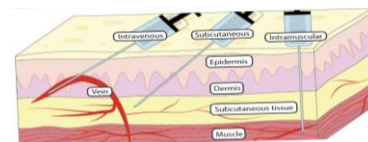
Approved by relevant committees in UCLH, RFH and CNWL

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Indications for sc medication / syringe driver

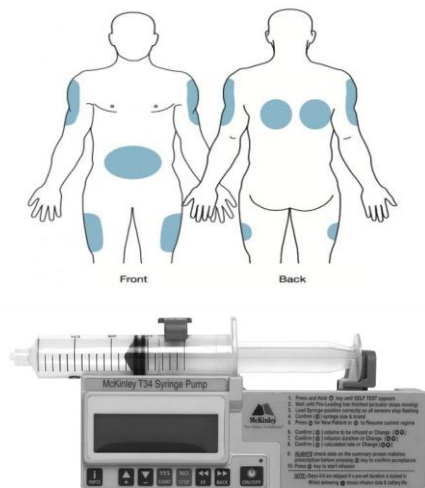
- Persistent nausea / vomiting
- Weakness/ reduced level of consciousness, resulting in difficulty swallowing medication, particularly in the last days of life
- Dysphagia-unable to swallow oral medication
- Poor absorption of oral medication
- Patient does not wish to take oral medication
- Repeated s/c doses inappropriate, ineffective or impractical



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Location of s/c cannula



Avoid:

- Oedematous areas including lymphoedematous arms (poor drug absorption and increased risk of infection/exacerbation of oedema)
- Bony prominences (poor absorption and discomfort)
- Irradiated sites (may have poor perfusion and hence poor drug absorption)
- Skin folds, sites near a joint and waistband area (movement may displace cannula; discomfort)
- Broken skin.

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Initial steps

- Patient / carer assessment
 - History and examination (including, if appropriate, assessment of prognosis)
 - Understanding / desire for information?
 - Explanation – patient and family
- Prescribe
 - Select and prescribe medications and correct doses – use FP10 / TTA
 - Use local guidelines, check previous opioid doses etc
 - Seek advice if needed – palliative care
 - Source medications - ??liaise with community pharmacy if urgent
- Authorise
 - Authorise medications using MAAR chart
 - Coordinate administration with community nursing staff
 - Document – including updating CMC

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Discussion with patient/family

- Rationale for use of SC medications – control of symptoms, guaranteed absorption etc
- Key elements of pump – medications used, cannula rather than needle, how it works (flashing light) etc
- Check
 - Past experience with syringe driver?
 - Fears and anxiety of using syringe driver?
- Reassure that using syringe driver does not necessarily indicate that death is imminent, and that it does not speed up dying process (if relevant)
- Ongoing care and assessment – what will happen / when
- Emergency contact numbers including DN numbers – in and out of hours

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Prescribing (1)

‘Standard’ prescription for care of a patient in the last days of life
– opioid naïve, with normal renal function

Symptom	Medication	Concentration	PRN dose	CSCI dose / 24hours	No of ampoules
Pain / breathlessness	Morphine Sulphate	10mg/ml amps	2.5mg to 5mg SC 2hrly	10mg to 30mg SC over 24hrs	10 (Ten)
Nausea	Cyclizine <i>or</i>	50mg/ml amps	50mg SC 8hrly	150mg SC over 24 hours	10
	Haloperidol	5mg/ml amps	0.5mg to 1mg SC 6hrly	1.5mg to 3mg SC over 24hrs	10
Agitation	Midazolam	10mg/2ml amps	2.5mg to 5mg SC 2hrly	10mg to 30mg SC over 24hrs	10 (Ten)
Secretions	Glycopyrronium	600micrograms/2ml	100micrograms to 200micrograms SC 4hrly	600micrograms to 1.2mg SC over 24hrs	10
Diluent	Water for injection	10mls	N/A	N/A	10

Prescribing (2)

Opioid conversions – for patients already on oral opioids:

1. Calculate total 24hr dose of ORAL opioid
2. Calculate equipotent 24hr dose of SC opioid:
 - PO morphine to SC morphine - divide by 2
 - PO oxycodone to SC oxycodone – divide by 2
 - PO morphine to SC diamorphine – divide by 3
3. Consider 33% dose reduction, if pain / dyspnoea is controlled
4. For morphine / oxycodone / diamorphine, PRN dose = 1/6th 24 hour CSCI dose

If patient is on a Fentanyl patch, seek advice

If unsure, seek advice!

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Pump set up

- Equipment needed: medications, pump, MAAR chart, syringes, needles sc lines, labels, dressings
- Clinical assessment: consider:
 - prn dose needed to initiate symptom control?
 - Which medications to use? May not need all those authorised.
 - What dose to use?
- Seek advice if unsure – GP / palliative care
- Space, time, care to draw up and administer pump
- Documentation - label, chart, notes
- Explanation / reassurance – pump, telephone numbers etc
- Hand over

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Ongoing Care

- Daily review and assessment
 - Review symptom control, number of PRN doses required
 - Consider whether doses should be increased or decreased
 - Consider whether other medications authorised should be added – e.g glycopyrronium for secretions
- Daily explanation and reassurance
- Forward planning
 - Equipment, medication, new MAAR chart (if doses increasing / new chart needed)
 - Particularly for weekends / out of hours
 - Allow for time to obtain medications



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Resources

A: Symptom control MAAR chart:

1. 24hrs CSCI authorisation form
2. PRN medication authorisation and administration form
3. Crisis / emergency and regular medication authorisation and administration form
4. CD stock balance chart
5. Non-CD stock balance chart
6. 24hrs CSCI administration record



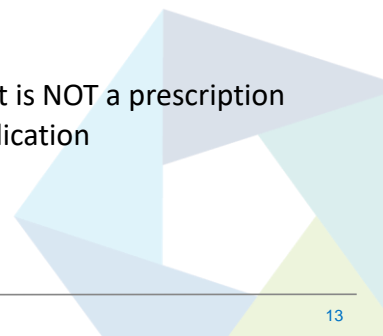
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Resources

B: Policy – Key points:

- Outlines responsibilities – organisations, clinicians, need for consent, need for training, etc
- Outlines need to use local processes for incident reporting and risk management, and report specific issues with MAAR to EOLC Clinical Network
- Advises use of PANG / local prescribing guidelines to guide medication choice and doses
- Covers adults and children
- Chart is an authorisation for administration of medication; it is NOT a prescription
- Use local policy / procedure for carer administration of medication
- Consent = essential
- Reiterates essential elements of Procedure



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Resources

C: Patient information leaflet (within policy): covers

- What are 'anticipatory medications'?
- Who will give medications?
- Benefits?
- Side effects?
- How are they administered?
- What to do about other medications?
- Storage?



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Resources

D: Procedure (1):

• For prescribers:

- Reminder – it is not a prescription
- Prescribing must be clear and unambiguous
- Careful dose calculation - use of PANG or local guidelines
- Seek specialist advice if needed
- Complete three charts - 24hr CSCI, as required, and crisis/regular charts (1-3)
- Wet sign where possible
- **Use 'to' rather than '-' when writing dose ranges**
- **Doses <1mg must be written as 'micrograms'**
- Review **before** initiating medication, and **during** administration – joint responsibility with administering clinicians
- Re-write charts as needed

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Resources

D - Procedure (2)

Signature of prescriber:

- Wet signature = signature of choice for an independent nurse, Dr or Pharmacy prescriber
 - Print off completed MAAR chart
 - Wet sign
 - Scan completed authorisation chart
 - Email / give to community nursing team / patient or family
- Electronic signature – only in exceptional circumstances:
 - Type name & GMC/NMC/GPhC number on top right of Pages 1, 2 & 3
 - Type name in the box beside each authorised medication
 - Email completed MAAR charts to & from nhs.net accounts only

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Resources

D: Procedure (3):

- For staff administering medication:
 - Check signatures and clarity of authorisation
 - Careful selection of medications and preparation of syringe
 - Careful completion of all documentation
 - Contents of syringe must be clearly documented on label attached to syringe
 - Confirm contents of syringe when in use / when being transferred (from two sources - chart / label / discharge summary etc)
 - Seek review / advice / support if unsure or unclear
 - Planning - Ensure adequate supplies of all medicines are available for next period and next syringe
 - Planning - Check whether chart needs re-writing
 - Strike through, sign, date and store old MAAR charts
 - Use standard MAR chart for other regular medications
 - Disposal of medications – must be by carers / using local policy

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Chart 1 – CSCI authorisation

[EXAMPLE] PAN-LONDON SYMPTOM CONTROL MEDICATION AUTHORISATION AND ADMINISTRATION RECORD (MAAR) CHART V2

1. 24 HOURS CONTINUOUS SUBCUTANEOUS INFUSION (SYRINGE PUMP) AUTHORISATION CHART V2

This document should remain with the patient

These charts are only for injectable medicines. Tick this box if another Community Drug Chart is in use e.g. for Patches, Enemas etc. <input type="checkbox"/>	
If more than one syringe pump is being used, please use a separate syringe pump Authorisation Chart	
Palliative Care Team Contact Details: 0900-1700 M-F 0203 333 3333 otherwise 02030000000	Authorising clinician name and GMC/NMC/GPhC number: Dr B E Painful GMC number 12345678
Patient Information	Allergies and Adverse Drug Reactions (ADR)
Patient Name: A N Other	No Known Drug Allergies (NKDA): <input type="checkbox"/> If required, seek source of allergy
NHS No: xxxxxxxxxxxxxxxxxxxx	List Medicine/Substance and Reaction: Penicillins - Rash
D.O.B 11/11/1111	
Weight (for children): N/A	Print, Sign & Date: Dr B E Painful 15.4.2020

Check if there is an analgesic transdermal patch: Y N Drug name: N/A Dose: N/A

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Chart 1 contd

Pain and / or Breathlessness			
Date: 15.4.2020	Medication: Morphine Sulphate	Dose range: 10mg to 20mg (over 24 hours)	Prescriber sign & print: Dr B E Painful
Nausea / Vomiting			
Date: 15.4.2020	Medication: Cyclizine	Dose range: 150mg (over 24 hours)	Prescriber sign & print: Dr B E Painful
Agitation / Distress			
Date: 15.4.2020	Medication: Midazolam	Dose range: 10mg to 30mg (over 24 hours)	Prescriber sign & print: Dr B E Painful
Respiratory tract secretions			
Date: 15.4.2020	Medication: Glycopyrronium	Dose range: 600 micrograms to 1.2mg (over 24 hours)	Prescriber sign & print: Dr B E Painful
Other medication – specify indication here:			
Date:	Medication:	Dose range: (over 24 hours)	Prescriber sign & print:
Other medication – specify indication here:			
Date:	Medication:	Dose range: (over 24 hours)	Prescriber sign & print:
Diluent			
Date: 15.4.2020	Diluent: Water for Injection		Prescriber sign & print: Dr B E Painful

Prescribers:

Use guidelines to support prescribing.
When prescribing a range, write 'to', not '-'
E.g. Morphine sulphate 10mg to 20mg

Must write 'micrograms', not 'mcg'

E.g.

Glycopyrronium 600micrograms to 1.2 mg

Administering clinicians :

Check clinical scenario carefully before
initiating CSCI
Seek advice if uncertain

Chart 2 – as required authorisation



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Pain	Date:	Time:	Dose:	Sign:
Medication: Morphine Sulphate	Date: 15.4.2020	Time:	Dose Range: 2.5mg to 5mg Max 24hour dose: 30mg	Sign: Prescriber sign & print: Dr B E Painful
Nausea / Vomiting	Date:	Time:	Dose:	Sign:
Medication: Haloperidol	Date: 15.4.2020	Time:	Dose Range: 500 micrograms to 1mg Max 24hour dose: 3mg	Sign: Prescriber sign & print: Dr B E Painful
Agitation / Distress	Date:	Time:	Dose:	Sign:
Medication: Midazolam	Date: 15.4.2020	Time:	Dose Range: 1.25mg to 5mg Max 24hour dose: 30mg	Sign: Prescriber sign & print: Dr B E Painful
Respiratory secretions	Date:	Time:	Dose:	Sign:
Medication: Glycopyrronium	Date: 15.4.2020	Time:	Dose Range: 100 micrograms to 200 micrograms Max 24hour dose: 1.2mg	Sign: Prescriber sign & print: Dr B E Painful
Other indication:	Date:	Time:	Dose:	Sign:
Medication:	Date:	Time:	Dose Range:	Sign:
Date:	Dose:	Time:	Dose Range:	Sign:
Max 24hour dose:	Sign:			
Frequency:				
Prescriber sign & print:				

Authorisation Chart V2



patches, Enemas etc.

Other:

Reactions (ADR)

Source of allergy

Team

Dose: N/A

Prescribers:

Use guidelines to support prescribing.
When prescribing a range, write 'to',
not '-'

Must write 'micrograms', not 'mcg'

Administering clinicians:

Check clinical scenario carefully
Seek advice if uncertain



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Chart 3 – Crisis/emergency and regular medications

CRISIS / EMERGENCY SUBCUTANEOUS AND INTRAMUSCULAR INJECTIONS

Indication:	Administration record:	Administration record:	Administration record:
Medication:	Date:	Date:	Date:
Dose:	Time:	Time:	Time:
Route:	Dose:	Dose:	Dose:
Max 24hour dose:	Sign:	Sign:	Sign:
Frequency:			
Prescriber sign, print & date:			

Indication:	Administration record:	Administration record:	Administration record:
Medication:	Date:	Date:	Date:
Dose:	Time:	Time:	Time:
Route:	Dose:	Dose:	Dose:
Max 24hour dose:	Sign:	Sign:	Sign:
Frequency:			
Prescriber sign, print & date:			

REGULAR DOSE SUBCUTANEOUS INJECTIONS

Indication:	Date:																		
Medication:	Enter administration times																		
Dose range:																			
Prescriber sign, print & date:																			

Indication:	Date:																		
Medication:	Enter administration times																		
Dose range:																			
Prescriber sign, print & date:																			

Prescribers:
Use for crisis doses of medication – e.g midazolam if there is a risk of a significant bleed
Seek advice if uncertain

Administering clinicians:
Check scenario before administering
seek advice if uncertain
Use standard MAAR chart for regular oral medication

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Chart 4 - Controlled drug stock balance chart

4. CONTROLLED DRUG STOCK BALANCE CHART V2

Patient Name:		Medication:			
DOB:	Form:	Strength:			
NHS Number:	Page no:				
	Batch No:	Expiry Date:			

Date:	Time:	Stock balance/Stock received (no. ampoules)	Dose given (milligram / microgram):	Amount wasted (milligram / microgram):	Remaining stock balance	Sign & print:

Chart 5 – non-controlled drugs stock balance chart

5. NON-CONTROLLED DRUG STOCK BALANCE CHART V2

Patient Name:		Medication:			
DOB:	Form:	Strength:			
NHS Number:	Page no:				
	Batch No:	Expiry Date:			

Date:	Time:	Stock balance/Stock received (no. ampoules)	Dose given (milligram / microgram):	Amount wasted (milligram / microgram):	Remaining stock balance	Sign & print:

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6. [EXAMPLE] 24 HOURS CONTINUOUS SUBCUTANEOUS INFUSION FROM A SYRINGE PUMP ADMINISTRATION RECORD AND CHECKLIST V2
This document should remain with the patient.

Patient name: A N Other		DOB: 11/11/1111	
NHS number: XXXXXXXXXXXX		SERIAL NO. on T34 pump: AB234	
1. Set up pump			
Start Date	15/04/2020	16/04/2020	
Start Time	09.30	09.30	
Battery life remaining %	98%	78%	
Volume to be infused (VTBI) (mL)	16.4mL	17mL	
Rate set ml/hr	0.68 mL/hr	0.71 mL/hr	
Infusion site	Right arm	Right arm	
Syringe size and Brand	20 mis BD Plastipak	20 mis BD Plastipak	
Time infusion to finish (hrs/mins)	24 hours	24 hours	
Tick box to confirm additive label attached to syringe	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
2. Contents of syringe			
Date	15/04/2020	16/04/2020	
Medication			
Morphine Sulphate	Dose: 10mg Batch no.: xyz1233 Expiry Date: 02/2022	Dose: 10mg Batch no.: xyz123 Expiry Date: 02/2022	Dose: Batch no.: Expiry Date:
Cyclizine	Dose: 150mg Batch no.: wtz123 Expiry Date: 04/2022	Dose: 150mg Batch no.: wtz123 Expiry Date: 04/2022	Dose: Batch no.: Expiry Date:
Water for Injections	Dose: N/A Batch no.: wtz123 Expiry Date: 04/2022	Dose: N/A Batch no.: wtz123 Expiry Date: 04/2022	Dose: Batch no.: Expiry Date:
	Dose: Batch no.: Expiry Date:	Dose: Batch no.: Expiry Date:	Dose: Batch no.: Expiry Date:
	Dose: Batch no.: Expiry Date:	Dose: Batch no.: Expiry Date:	Dose: Batch no.: Expiry Date:
Sign and print:	my example xxxx	my example xxxx	

Chart 6 – CSCI administration record

Three parts:

- Setting up pump
- Contents of syringe
- Checking pump when in use

Use one column per day

3. Check pump while in use												
Time	10.30	14.30	19.30	10.30								
Battery light flashing Green? (yes/no)	YES	YES	YES	YES								
Battery life remaining %	98%	90%	89%	78%								
Spare battery available? (yes/no)	YES	YES	YES	YES								
Rate on display pad (mL/hr)	0.68 mL/hr	0.68 mL/hr	0.68 mL/hr	0.71 mL/hr								
VTBI (Volume to be infused) (mL)	16.7 mL	13 mL	9.6 mL	16.3 mL								
Visual volume checked (yes/no)	YES	YES	YES	Yes								
VI (Volume infused)	0.7mL	3.4mL	6.8mL	0.7mL								
Time remaining (hrs/mins)	23hrs	19hrs	14hrs	23hrs								
Syringe line & contents clear? (yes/no)	YES	YES	YES	YES								
Is the infusion site condition okay? (yes/no)	YES	YES	YES	YES								
Keypad locked (*)	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Patient comfortable? (yes/no)	YES	NO	YES	YES								
Any action required? (yes/no)	NO	YES	NO	NO								
Sign and print	<small>Example only</small>	<small>Example only</small>	<small>Example only</small>	<small>Example only</small>								

Chart 6 – CSCI administration record

Three parts:

- Setting up pump
- Contents of syringe
- Checking pump when in use

Use one column per day