



WAITEMATA DHB

BEST CARE BUNDLES

BEST CARE FOR EVERYONE

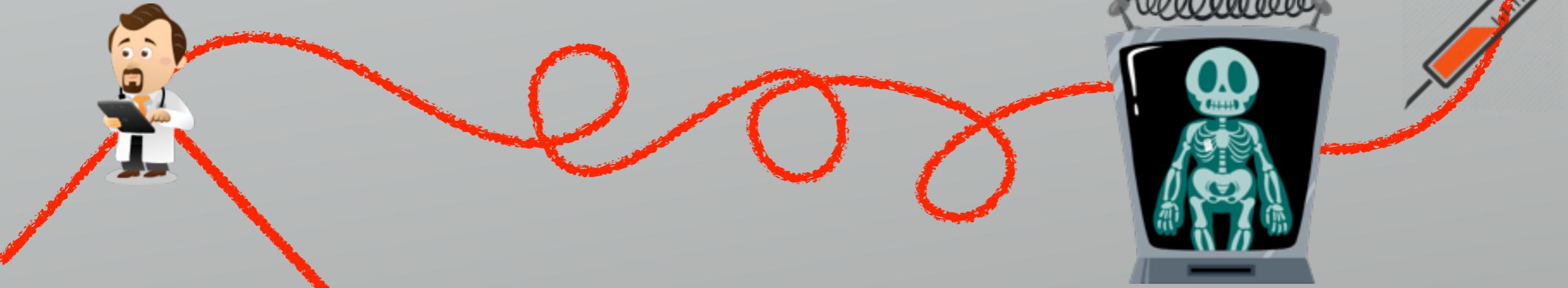
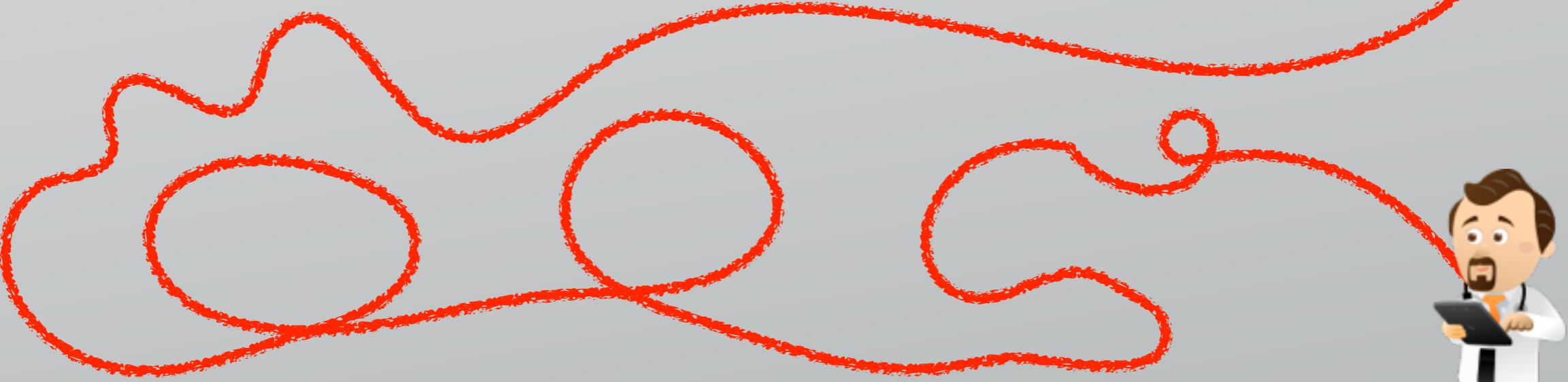


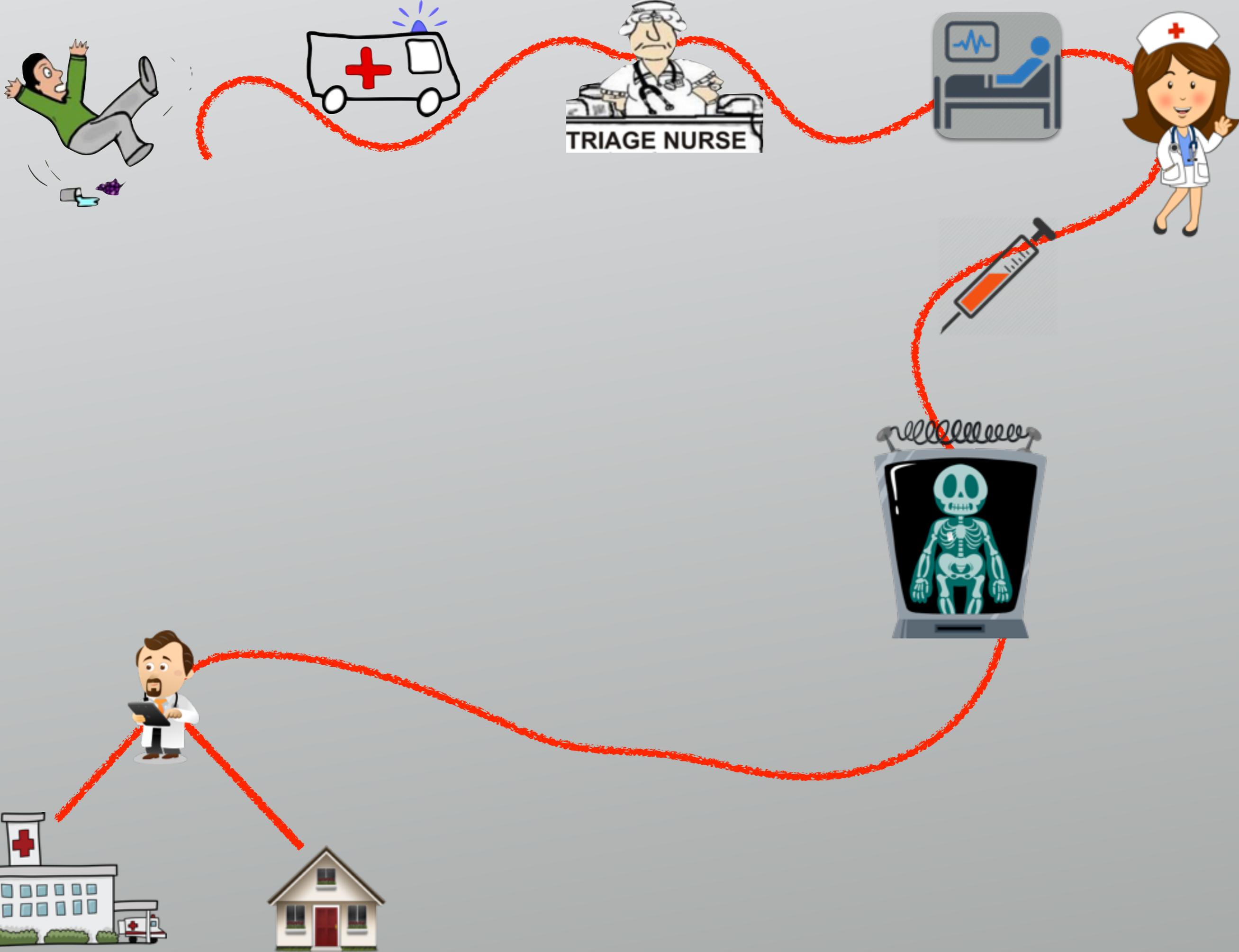
Prudence Cooke



Prudence Cooke







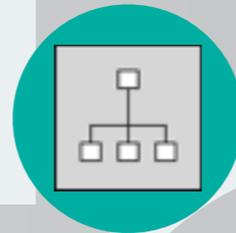
Best Care Bundle

elements



**PATHWAY
& CHECKLISTS**

NURSING EDUCATION



CLINICAL NOTES

**INTERDEPARTMENTAL
AGREEMENT**



PATIENT ADVICE

STANDING ORDERS



(PLACE PATIENT LABEL HERE)

SURNAME: _____ NHI: _____

FIRST NAMES: _____

Date of Birth: ____/____/____ SEX: _____

BRONCHIOLITIS

Indicate findings below by: Positive / given OR Negative / not given *All boxes must be populated*

Inclusion Criteria

Date:	Time:	Name:	Sign:
<input type="checkbox"/> Upper Airway Obstruction → STOP - NOT SUITABLE FOR THIS BEST CARE BUNDLE ↳ ED Senior Medical or Paediatric Registrar review without delay			
<input type="checkbox"/> Wheeze present and < 1 year of age → CONTINUE ↳ Initiate Best Care Bundle "Bronchiolitis" on Whiteboard			

(PLACE PATIENT LABEL HERE)

SURNAME: _____ NHI: _____

FIRST NAMES: _____

Date of Birth: ____/____/____ SEX: _____

REHYDRATION

Indicate findings below by: Positive / given OR Negative / not given *All boxes must be populated*

Inclusion Criteria

Date:	Time:	Name:	Sign:
<input type="checkbox"/> Under 6 w of age → STOP - NOT SUITABLE FOR THIS CARE BUNDLE ↳ ED Senior Medical or Paediatric Registrar review without delay			
<input type="checkbox"/> Diarrhoea with or without vomiting and > 6 w of age → CONTINUE ↳ Initiate Best Care Bundle "Rehydration" on Whiteboard			

(PLACE PATIENT LABEL HERE)

SURNAME: _____ NHI: _____

FIRST NAMES: _____

Date of Birth: ____/____/____ SEX: _____

CROUP

Indicate findings below by: Positive / given OR Negative / not given *All boxes must be populated*

Inclusion Criteria

Date:	Time:	Name:	Sign:
<input type="checkbox"/> Age < 6 months → STOP - NOT SUITABLE FOR THIS CARE BUNDLE ↳ ED Senior Medical or Paediatric Registrar review without delay			
<input type="checkbox"/> Age > 6 months with stridor, barking cough and / or hoarse voice → CONTINUE ↳ Initiate Best Care Bundle "Croup" on Whiteboard <i>Include patients who have received treatment en route who are currently asymptomatic</i>			

Initial Nursing assessment - Aim to complete by 30 minutes

History, examination and vital signs recorded on the Nursing Assessment Sheet.
Croup Assessment Tool applied and appropriate pathway started. (see page 2)
↳ Initial Pathway: Mild Moderate Severe

Red Flags → Senior Medical or Paediatric Registrar review without delay

- CAT "Severe" or Hypoxia (Sats < 94%) → Move to Resus and inform Paediatric Team**
- Sudden onset, no prodromal illness, history of choking (? Foreign body)
- Urticarial rash (? Anaphylaxis) Allergies associated with Anaphylaxis in the past
- Not immunised (? Epiglottitis) High fever and toxic appearance (? Bacterial Tracheitis / Epiglottitis)
- Known syndromes (e.g. Down Syndrome) or airway issues (Laryngo-tracheo malacia, Haemangiomas)

Pathway discontinued: Time: _____ Sign: _____

Completed normally Individualised management Alternative diagnosis

Admission Guidelines - When to refer for Paediatric review

If history of poor compliance with treatment after discharge in the past or suspicion that compliance is likely to be poor after discharge, discuss with Paediatric Team.

- Moderate symptoms persist
- Significant co-morbidities
- Any other significant concerns or high risk of deterioration
 - Required 2 or more doses of Adrenaline
 - Transport issues if needed to come back to ED

Sample Signatures

(PLACE PATIENT LABEL HERE)

SURNAME: _____ NHI: _____

FIRST NAMES: _____

Date of Birth: ____/____/____ SEX: _____

WHEEZE > 1 YEAR OF AGE

Indicate findings below by: Positive / given OR Negative / not given *All boxes must be populated*

Inclusion Criteria

Date:	Time:	Name:	Sign:	Designation:
<input type="checkbox"/> Upper Airway Obstruction → STOP - NOT SUITABLE FOR THIS CARE BUNDLE ↳ ED Senior Medical or Paediatric Registrar review without delay				
<input type="checkbox"/> Wheeze present and older than 1 year of age → CONTINUE ↳ Initiate Best Care Bundle "Wheeze over 1 year" on Whiteboard				

Initial Nursing assessment - Aim to complete by 30 minutes

History, examination and vital signs recorded on the Nursing Assessment Sheet.
Wheeze Severity Score recorded and appropriate pathway started. (see page 2)
↳ Initial Pathway started: Mild Moderate Severe

Red Flags → Senior Medical or Paediatric Registrar review without delay

- SS = 6 or "Severe" → Move to Resus and inform Paediatric Team**
- Poor response to Salbutamol prior to arrival in ED Possible FB inhalation Stridor
- Previous PICU admit Cardiac disease Other Respiratory disease (CF, Bronchiectasis)
- Allergies associated with anaphylaxis in past Urticarial rash

Pathway discontinued: Time: _____ Sign: _____

Completed normally Individualised management Alternative diagnosis

Admission Guidelines - When to refer for Paediatric review

If history of poor compliance with treatment after discharge in the past or suspicion that compliance is likely to be poor after discharge, discuss with Paediatric Team.

- Moderate symptoms persist
- Oxygen requirement
- Significant co-morbidities
- Any other significant concerns or high risk of deterioration
 - If late at night and transport issues, consider admitting overnight rather than discharging at this time

Sample Signatures

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deterioration:
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Initials
TES
Trial

BEST CARE BUNDLE - PATHWAY

(PLACE PATIENT LABEL HERE)
SURNAME: _____ NHI: _____
FIRST NAMES: _____
Date of Birth: ____/____/____ SEX: _____

NURSING

ADULT ASTHMA

Date: _____ Time: _____ Assessment nurse: _____ Sign: _____

INCLUSION CRITERIA	EXCLUSION CRITERIA
<input type="checkbox"/> Known asthmatic <input type="checkbox"/> Shortness of breath and / or wheeze	<input type="checkbox"/> Chronic lung disease other than asthma: <i>e.g. COPD / Cystic fibrosis / Bronchiectasis</i> <input type="checkbox"/> Age > 65 <input type="checkbox"/> History of heart failure

(PLACE PATIENT LABEL HERE)
SURNAME: _____ NHI: _____
FIRST NAMES: _____
Date of Birth: ____/____/____ SEX: _____

NURSING

LOWER BACK PAIN

Date: _____ Time: _____ Assessment nurse: _____ Sign: _____

INCLUSION CRITERIA	EXCLUSION CRITERIA
<input type="checkbox"/> Lower back pain (<i>likely mechanical</i>) <input type="checkbox"/> < 6 weeks duration <i>Acute flare up of chronic back pain may be included</i>	<input type="checkbox"/> Age < 15 <input type="checkbox"/> Upper back / neck pain <input type="checkbox"/> Abdominal pain <input type="checkbox"/> Chest pain <input type="checkbox"/> Significant trauma <i>e.g. fall > 1 m, RTC</i> <i>Minor trauma is not an exclusion</i>

(PLACE PATIENT LABEL HERE)
SURNAME: _____ NHI: _____
FIRST NAMES: _____
Date of Birth: ____/____/____ SEX: _____

NURSING

DIARRHOEA +/- VOMITING IN ADULTS

Date: _____ Time: _____ Assessment nurse: _____ Sign: _____

INCLUSION CRITERIA	EXCLUSION CRITERIA
<input type="checkbox"/> Diarrhoea +/- vomiting suggestive of Gastroenteritis <i>e.g. recent onset of profuse watery diarrhoea, associated with nausea and / or vomiting.</i>	<input type="checkbox"/> Vomiting only <input type="checkbox"/> Severe pain / guarding <input type="checkbox"/> Known Crohns <input type="checkbox"/> Coffee ground vomitus <input type="checkbox"/> Known Ulcerative Colitis <input type="checkbox"/> Melaena <input type="checkbox"/> Immunocompromised

Initiate Treatment Pathway: BCB Diarrhoea & vomiting *In TP column on the Electronic Whiteboard. This records the start of treatment time for audit purposes and informs the medical staff*

STOP! Not suitable for this Best Care Bundle
Select 'BCB removed' Treatment Pathway
Continue usual nursing cares

NURSING ASSESSMENT Aim < 30 minutes

History, examination and vital signs *Document on Nursing Assessment Record*
 IV line and bloods for **all patients in Acutes**. *In Waiting room use clinical judgement*

General profile, LFT's, Lipase, Lactate (VBG)
 Blood cultures *only if temp > 38 °C or pregnant ? (? Listeria)*
 Stool culture → *Do not send routinely. See indications on page 2*

RED FLAGS All red flag boxes must be populated

<input type="checkbox"/> HR < 50 or > 120	<input type="checkbox"/> Systolic BP < 90 mmHg	<input type="checkbox"/> Any signs of severe illness as per Assessment Tool
<input type="checkbox"/> Fever > 38.5° C	<input type="checkbox"/> Pain score > 5 / 10	<input type="checkbox"/> Age > 65 <input type="checkbox"/> Pregnancy consider Listeria
<input type="checkbox"/> Tachypnoea > 24	<input type="checkbox"/> Blood in the stool	<input type="checkbox"/> Nursing concern

NO RED FLAGS Continue Best Care Bundle follow pathway instructions page 2 & 3

RED FLAGS PRESENT (ANY) → Senior Dr review ASAP (SMO / Senior Registrar)
 Continue Best Care Bundle. Intervention if any: _____
 Exit Care Bundle: Reason: _____
 ↳ Select 'BCB removed' in TP column, Electronic Whiteboard. This signals the medical staff
 Dr Name: _____ Sign: _____

SEVERITY ASSESSMENT TOOL Choose more severe pathway if any doubt

	Mild	Moderate	Severe
General wellbeing	<input type="checkbox"/> Feels mildly unwell <i>Not distressed</i>	<input type="checkbox"/> Feels unwell <i>e.g. lethargic, tired, light headed</i>	<input type="checkbox"/> Looks and feels unwell <i>e.g. Profound lethargy, restless</i>
Pulse rate	<input type="checkbox"/> 50 - 99 bpm	<input type="checkbox"/> 100 - 120 bpm	<input type="checkbox"/> > 120 bpm, weak radial pulse
Blood pressure	<input type="checkbox"/> Normal	<input type="checkbox"/> Orthostatic hypotension	<input type="checkbox"/> Shock, systolic BP < 90 mmHg
Perfusion	<input type="checkbox"/> Peripherally warm	<input type="checkbox"/> Peripherally cool	<input type="checkbox"/> Cool and clammy
Mucous membranes	<input type="checkbox"/> Moist	<input type="checkbox"/> Dry	<input type="checkbox"/> Sunken eyes, ↓ skin turgor
Urine output	<input type="checkbox"/> Normal or dark urine	<input type="checkbox"/> Decreased	<input type="checkbox"/> ↓ or no urine
Fluid tolerance	<input type="checkbox"/> Tolerating fluids	<input type="checkbox"/> Tolerating no or minimal fluids	<input type="checkbox"/> Tolerating no fluids
Nr Diarrhoea episodes	<input type="checkbox"/> ≤ 5 / 24 hrs	<input type="checkbox"/> ≥ 6 / 24hrs	<input type="checkbox"/> ≥ 10 / 24hrs

(PLACE PATIENT LABEL HERE)
SURNAME: _____ NHI: _____
FIRST NAMES: _____
Date of Birth: ____/____/____ SEX: _____

NURSING

MINOR HEAD INJURY: GCS ≥ 13

Date: _____ Time: _____ Assessment nurse: _____ Sign: _____

INCLUSION CRITERIA	EXCLUSION CRITERIA
<input type="checkbox"/> Trauma to the head < 24 hrs	<input type="checkbox"/> Age < 15 <input type="checkbox"/> Multi-trauma requiring team response <i>e.g. RTC</i>

(PLACE PATIENT LABEL HERE)
SURNAME: _____ NHI: _____
FIRST NAMES: _____
Date of Birth: ____/____/____ SEX: _____

NURSING

NAUSEA & VOMITING IN PREGNANCY

Date: _____ Time: _____ Assessment nurse: _____ Sign: _____

INCLUSION CRITERIA	EXCLUSION CRITERIA
<input type="checkbox"/> Pregnant ≤ 12 weeks with nausea and vomiting or <input type="checkbox"/> > 12 weeks with documented history of Hyperemesis	<input type="checkbox"/> PV bleeding <input type="checkbox"/> Abdominal pain

(PLACE PATIENT LABEL HERE)
SURNAME: _____ NHI: _____
FIRST NAMES: _____
Date of Birth: ____/____/____ SEX: _____

NURSING

TOTAL HIP JOINT REPLACEMENT DISLOCATION

Date: _____ Time: _____ Assessment nurse: _____ Sign: _____

(PLACE PATIENT LABEL HERE)
SURNAME: _____ NHI: _____
FIRST NAMES: _____
Date of Birth: ____/____/____ SEX: _____

NURSING

BLEEDING / PAIN IN EARLY PREGNANCY

Date: _____ Time: _____ Assessment nurse: _____ Sign: _____

INCLUSION CRITERIA	EXCLUSION CRITERIA
<input type="checkbox"/> Pregnant < 14/40 <input type="checkbox"/> PV bleeding and / or pain <i>Pregnancy not confirmed → serum β-HCG ASAP</i> <i>Full bladder needed for USS - push oral fluids</i>	<input type="checkbox"/> Not pregnant <input type="checkbox"/> > 14 weeks

Initiate Treatment Pathway: Bleeding in pregnancy *In TP column on the Electronic Whiteboard. This records the start of treatment time for audit purposes and informs the medical staff*

STOP! Not suitable for this Best Care Bundle
Select 'BCB removed' Treatment Pathway
Continue usual nursing cares

NURSING ASSESSMENT

History, examination, vital signs *Document on nursing assessment record*
 IV access and Bloods *√ PV Bleed panel, √ G&H √ β-HCG*
 ↳ 2 large bore IV lines if signs of shock (i.e. cool, clammy, HR > 110, BP < 90)
 Administer analgesia *See formulary on page 4*
 Push oral fluids *Aim 2 full cups water immediately - full bladder preferable for USS*
IV fluids if NPO / concern about ? ectopic. Clinician decision
Urine analysis not a priority - MSU only if ? UTI

RED FLAGS All red flags boxes must be populated = YES = NO

<input type="checkbox"/> HR > 110	<input type="checkbox"/> Heavy bleeding: <i>e.g > 1pad / hr or clots</i>	<input type="checkbox"/> Severe abdominal pain / guarding / rebound
<input type="checkbox"/> Systolic BP < 90	<input type="checkbox"/> Fever	<input type="checkbox"/> Collapse
<input type="checkbox"/> Clinical concern		

NO RED FLAGS **RED FLAGS PRESENT (ANY)** → Senior Dr review ASAP (SMO / Senior Registrar)

(PLACE PATIENT LABEL HERE)
SURNAME: _____ NHI: _____
FIRST NAMES: _____
Date of Birth: ____/____/____ SEX: _____

NURSING

TRAUMATIC HIP PAIN - ADULTS
(Suspected # neck of femur)

Date: _____ Time: _____ Assessment nurse: _____ Sign: _____

INCLUSION CRITERIA	EXCLUSION CRITERIA
<input type="checkbox"/> Clinically suspected # NOF <i>Neck of Femur</i>	<input type="checkbox"/> Any major injury or acute medical instability <input type="checkbox"/> Previous # NOF or THJR on same side as injury

(PLACE PATIENT LABEL HERE)
SURNAME: _____ NHI: _____
FIRST NAMES: _____
Date of Birth: ____/____/____ SEX: _____

NURSING

URINARY SYMPTOMS IN ADULTS
(Suspected Urinary Tract Infection - UTI)

Date: _____ Time: _____ Assessment nurse: _____ Sign: _____

INCLUSION CRITERIA	EXCLUSION CRITERIA
<input type="checkbox"/> Suspected UTI <i>e.g. dysuria, frequency, urgency, supra-pubic discomfort, cloudy urine</i>	<input type="checkbox"/> Symptoms suggestive of acute renal colic <input type="checkbox"/> Rectal or perineal pain <input type="checkbox"/> Renal patient (<i>especially transplant</i>)

(PLACE PATIENT LABEL HERE)
SURNAME: _____ NHI: _____
FIRST NAMES: _____
Date of Birth: ____/____/____ SEX: _____

NURSING

ACUTE URINARY RETENTION

Date: _____ Time: _____ Assessment nurse: _____ Sign: _____

INCLUSION CRITERIA	EXCLUSION CRITERIA
<input type="checkbox"/> Acute Urinary Retention suspected	<input type="checkbox"/> Any major injury or acute medical instability

Initiate Treatment Pathway: BCB Urinary Retention *In TP column on the Electronic Whiteboard. This records the start of treatment time for audit purposes and informs the medical staff*

STOP! Not suitable for this Best Care Bundle
Select 'BCB removed' Treatment Pathway
Continue usual nursing cares

NURSING ASSESSMENT Aim < 30 minutes

History, examination and vital signs *Document on Nursing Assessment Record*
 Hospital gown Start fluid balance chart

RED FLAGS All red flag boxes must be populated

<input type="checkbox"/> HR > 120	<input type="checkbox"/> Systolic BP < 90	<input type="checkbox"/> Clinical concern	<input type="checkbox"/> Change in mental state
<input type="checkbox"/> NO RED FLAGS Continue Best Care Bundle	<input type="checkbox"/> RED FLAGS PRESENT (ANY) → Senior Dr review ASAP (SMO / Senior Registrar) <input type="checkbox"/> Continue Best Care Bundle. Intervention if any: _____ <input type="checkbox"/> Exit Care Bundle: Reason: _____ ↳ Select 'BCB removed' in TP column, Electronic Whiteboard. This signals the medical staff Dr Name: _____ Sign: _____		

URETHRAL CATHETER ASAP Check contraindications, flowchart & IDUC size guide page 2

URETHRAL CATHETER PLACEMENT RECORD KPI for this bundle please complete.

Time: _____ Placed by: _____ Sign: _____ Designation: _____

Catheter size: _____ Fg *Size guide page 2* Balloon volume: _____ mL

Insertion: No difficulty Minor difficulty Unable to insert

Urine quality: Clear Cloudy Debris

Blood: No blood Rose Clots (few) Clots (heavy) *Manual irrigation policy, CeDSS*

Confirm: Sterile technique Specimen sent to lab only if + Leucocytes or Nitrites
 Foreskin replaced or Circumcised

DOCUMENT VOLUME DRAINED

Volume	Stat (30 mins) _____ mL	if > 1000 mL →	<input type="checkbox"/> General panel bloods	<input checked="" type="checkbox"/> Do not send PSA
drained:	In 2 hours _____ mL	if > 1500 mL →	<input type="checkbox"/> General panel bloods.	Observe for post obstructive diuresis

FURTHER TASKS To be done for all patients. DCT team, or nursing staff

Catheter cares education *Discharge Coordinator: NSH 3861 Mon - Sun 8 am - 3 pm*
 Provide 'Catheter pack' flight deck / staff base *WTH 021 911 796 Mon - Sat 7 am - 5 pm*
 District Nurse referral for all patients. See TROC guide and timing information on page 3

= YES = NO

(PLACE PATIENT LABEL HERE)

SURNAME: _____ NHI: _____

FIRST NAMES: _____

Date of Birth: ____/____/____ SEX: _____

NURSING



TRAUMATIC HIP PAIN - ADULTS
(Suspected # neck of femur)

Date: _____ Time: _____ Assessment nurse: _____ Sign: _____

INCLUSION CRITERIA

Clinically suspected # NOF Neck of Femur

EXCLUSION CRITERIA

Any major injury or acute medical instability

Previous # NOF or THJR on same side as injury

Initiate Treatment Pathway: BCB Suspected # NOF
In TP column on the Electronic Whiteboard. This records the start of treatment time for audit purposes and informs the medical staff

STOP! Not suitable for this Best Care Bundle
Select 'BCB removed' Treatment Pathway
Continue usual nursing cares

NURSING ASSESSMENT Aim < 15 minutes

History, examination, vital signs *Document neurovascular observations on page 4*

IV access and Bloods *✓ General panel, ✓ G&H ✓ Coagulation studies if:*

- Warfarin / NOF
- Other
- Co

ECG

Pain score

At rest /10

On movement /10

Use 1-10 scale. Dementia / non verbal patients: RN impression

↳ No pain: 0 Mild:1-3 Moderate:4-7 Severe: 8-10

Pain score > 5 any time → Fascia Iliaca Block prior to X-ray

Administer analgesia *See formulary on page 4. Arrange Fascia Iliaca block if pain moderate / severe*

Request Radiology ASAP *Pelvis AP and lateral. Specify 'Fast track # NOF Best Care Bundle'*

CHECK PAIN PRIOR TO RADIOLOGY Is there any pain on flexion of unaffected hip to 90°?

↳ No → Continue to Radiology

↳ Yes → Fascia Iliaca Block prior to Radiology

Contact POD SMO to arrange - FIB packs on procedure trolley & drug room



RED FLAGS All red flags boxes must be populated = YES = NO

Abnormal vital signs Shortness of breath (new) Seizure (pre / post fall) Other significant injuries

Head injury Signs of CVA (new) GI bleeding Chest pain (active / recent)

Collapse ? cause Decreased LOC (new) Other concerns noted

NO RED FLAGS

Continue Best Care Bundle

RED FLAGS PRESENT (ANY) → Senior Dr review ASAP (SMO / Senior Registrar)

Dr Name: _____ Sign: _____

Continue Best Care Bundle. Intervention if any: _____

Exit Care Bundle: Reason: _____

↳ Select 'BCB removed' in TP column, Electronic Whiteboard. This signals the medical staff

BEST CARE BUNDLE - PATHWAY

Previous # NOF or THJR on same side as injury

Initiate Treatment Pathway: BCB Suspected # NOF
In TP column on the Electronic Whiteboard. This records the start of treatment time for audit purposes and informs the medical staff

STOP! Not suitable for this Best Care Bundle
Select 'BCB removed' Treatment Pathway
Continue usual nursing cares

NURSING ASSESSMENT Aim < 15 minutes

- History, examination, vital signs *Document neurovascular observations on page 4*
- IV access and Bloods *✓ General panel, ✓ G&H ✓ Coagulation studies if:*
 - Warfarin → INR only
 - Other anticoagulants → Coag studies
 - Coagulation disorders → Coag studies
- ECG
- Pain score

<i>At rest</i> 6 /10	<i>On movement</i> 9 /10
--------------------------------	------------------------------------

Use 1-10 scale. Dementia / non verbal patients: RN impression:
↳ No pain: 0 Mild:1-3 Moderate:4-7 Severe: 8-10

Pain score > 5 any time → Fascia Iliaca Block prior to X-ray

- Administer analgesia *See formulary on page 4. Arrange Fascia Iliaca block if pain moderate / severe*
- Request Radiology ASAP *Pelvis AP and lateral. Specify 'Fast track # NOF Best Care Bundle'*

CHECK PAIN PRIOR TO RADIOLOGY Is there any pain on flexion of unaffected hip to 90°?

↳ No → Continue to Radiology
 Yes → Fascia Iliaca Block prior to Radiology
Contact POD SMO to arrange - FIB packs on procedure trolley & drug room

RED FLAGS All red flags boxes must be populated ✓ = YES ✗ = NO

- | | | | |
|---|--|--|---|
| <input type="checkbox"/> Abnormal vital signs | <input type="checkbox"/> Shortness of breath (new) | <input type="checkbox"/> Seizure (pre / post fall) | <input type="checkbox"/> Other significant injuries |
| <input type="checkbox"/> Head injury | <input type="checkbox"/> Signs of CVA (new) | <input type="checkbox"/> GI bleeding | <input type="checkbox"/> Chest pain (active / recent) |
| <input type="checkbox"/> Collapse ? cause | <input type="checkbox"/> Decreased LOC (new) | <input type="checkbox"/> Other concerns noted | |

NO RED FLAGS

Continue Best Care Bundle

RED FLAGS PRESENT (ANY) → Senior Dr review ASAP (SMO / Senior Registrar)

Dr Name: _____ Sign: _____

Continue Best Care Bundle. Intervention if any: _____

Exit Care Bundle: Reason: _____

↳ Select 'BCB removed' in TP column, Electronic Whiteboard. This signals the medical staff

BEST CARE BUNDLE - PATHWAY



At rest /10

On movement /10

Use 1-10 scale. Dementia / non verbal patients: RN impression:

↳ No pain: 0 Mild:1-3 Moderate:4-7 Severe: 8-10

Pain score > 5 any time → Fascia Iliaca Block prior to X-ray

Administer analgesia

See formulary on page 4. Arrange Fascia Iliaca block if pain moderate / severe

CARE BU

RED FLAGS

All red flags boxes must be populated = YES = NO

- Abnormal vital signs
- Head injury
- Collapse ? cause
- Shortness of breath (new)
- Signs of CVA (new)
- Decreased LOC (new)
- Seizure (pre / post fall)
- GI bleeding
- Other concerns noted
- Other significant injuries
- Chest pain (active / recent)

NO RED FLAGS

Continue Best Care Bundle

RED FLAGS PRESENT (ANY) → Senior Dr review ASAP (SMO / Senior Registrar)

Dr Name: Rademeyer Sign: CRd

Continue Best Care Bundle. Intervention if any: Move to monitored

Exit Care Bundle: Reason:

↳ Select 'BCB removed' in TP column, Electronic Whiteboard. This signals the medical staff

Continue Best Care Bundle

Dr Name: Sign:

Continue Best Care Bundle. Intervention if any:

Exit Care Bundle: Reason:

↳ Select 'BCB removed' in TP column, Electronic Whiteboard. This signals the medical staff

= YES = NO

(PLACE PATIENT LABEL HERE)

SURNAME: _____ NHI: _____

FIRST NAMES: _____

Date of Birth: ____/____/____ SEX: _____



DIARRHOEA +/- VOMITING IN ADULTS

Date: _____ Time: _____ Assessment nurse: _____ Sign: _____

INCLUSION CRITERIA

Diarrhoea +/- vomiting suggestive of Gastroenteritis
e.g. recent onset of profuse watery diarrhoea, associated with nausea and / or vomiting.

EXCLUSION CRITERIA

Vomiting only Severe pain / guarding
 Known Crohns Coffee ground vomitus
 Known Ulcerative Colitis Melaena
 Immunocompromised

Initiate Treatment Pathway: BCB Diarrhoea & vomiting In TP column on the Electronic Whiteboard. This records the start of treatment time for audit purposes and informs the medical staff

STOP! Not suitable for this Best Care Bundle
Select 'BCB removed' Treatment Pathway
Continue usual nursing cares

NURSING ASSESSMENT Aim < 30 minutes

History, examination and vital signs Document on Nursing Assessment Record

IV line and bloods for **all patients in Acutes**. In Waiting room use clinical judgement

General profile, LFT's, Lipase, Lactate (VBG)

Blood cultures only if temp > 38 ° C or pregnant ♀ (? Listeria)

Stool culture → Do not send routinely. See indications on page 2

RED FLAGS All red flag boxes must be populated

<input type="checkbox"/> HR < 50 or > 120	<input type="checkbox"/> Systolic BP < 90 mmHg	<input type="checkbox"/> Any signs of severe illness as per Assessment Tool
<input type="checkbox"/> Fever > 38.5° C	<input type="checkbox"/> Pain score > 5 / 10	<input type="checkbox"/> Age > 65 <input type="checkbox"/> Pregnancy consider Listeria
<input type="checkbox"/> Tachypnoea > 24	<input type="checkbox"/> Blood in the stool	<input type="checkbox"/> Nursing concern

NO RED FLAGS
Continue Best Care Bundle follow pathway instructions page 2 & 3

RED FLAGS PRESENT (ANY) → Senior Dr review ASAP (SMO / Senior Registrar)

Continue Best Care Bundle. Intervention if any: _____

Exit Care Bundle: Reason: _____
↳ Select 'BCB removed' in TP column, Electronic Whiteboard. This signals the medical staff

Dr Name: _____ Sign: _____

SEVERITY ASSESSMENT TOOL Choose more severe pathway if any doubt

	<input type="checkbox"/> Mild	<input type="checkbox"/> Moderate	<input type="checkbox"/> Severe
General wellbeing	<input type="checkbox"/> Feels mildly unwell <i>Not distressed</i>	<input type="checkbox"/> Feels unwell <i>e.g. lethargic, tired, light headed</i>	<input type="checkbox"/> Looks and feels unwell <i>e.g. Profound lethargy, restless</i>
Pulse rate	<input type="checkbox"/> 50 - 99 bpm	<input type="checkbox"/> 100 - 120 bpm	<input type="checkbox"/> > 120 bpm, weak radial pulse
Blood pressure	<input type="checkbox"/> Normal	<input type="checkbox"/> Orthostatic hypotension	<input type="checkbox"/> Shock, systolic BP < 90 mmHg
Perfusion	<input type="checkbox"/> Peripherally warm	<input type="checkbox"/> Peripherally cool	<input type="checkbox"/> Cool and clammy
Mucous membranes	<input type="checkbox"/> Moist	<input type="checkbox"/> Dry	<input type="checkbox"/> Sunken eyes, ↓ skin turgor
Urine output	<input type="checkbox"/> Normal or dark urine	<input type="checkbox"/> Decreased	<input type="checkbox"/> ↓ or no urine
Fluid tolerance	<input type="checkbox"/> Tolerating fluids	<input type="checkbox"/> Tolerating no or minimal fluids	<input type="checkbox"/> Tolerating no fluids
Nr Diarrhoea episodes	<input type="checkbox"/> ≤ 5 / 24 hrs	<input type="checkbox"/> ≥ 6 / 24hrs	<input type="checkbox"/> ≥ 10 / 24hrs

Stool culture → Do not send routinely. See indications on page 2

RED FLAGS *All red flag boxes must be populated*

<input type="checkbox"/> HR < 50 or > 120	<input type="checkbox"/> Systolic BP < 90 mmHg	<input type="checkbox"/> Any signs of severe illness as per Assessment Tool
<input type="checkbox"/> Fever > 38.5° C	<input type="checkbox"/> Pain score > 5 / 10	<input type="checkbox"/> Age > 65
<input type="checkbox"/> Tachypnoea > 24	<input type="checkbox"/> Blood in the stool	<input type="checkbox"/> Nursing concern
<input type="checkbox"/> Pregnancy consider Listeria		

NO RED FLAGS
Continue Best Care Bundle
follow pathway instructions page 2 & 3

RED FLAGS PRESENT (ANY) → Senior Dr review ASAP (SMO / Senior Registrar)

Continue Best Care Bundle. Intervention if any: _____

Exit Care Bundle: Reason: _____
↳ Select 'BCB removed' in TP column, Electronic Whiteboard. This signals the medical staff

Dr Name: _____ Sign: _____

SEVERITY ASSESSMENT TOOL *Choose more severe pathway if any doubt*

	<input type="checkbox"/> Mild	<input type="checkbox"/> Moderate	<input type="checkbox"/> Severe
General wellbeing	<input type="checkbox"/> Feels mildly unwell <i>Not distressed</i>	<input type="checkbox"/> Feels unwell <i>e.g. lethargic, tired, light headed</i>	<input type="checkbox"/> Looks and feels unwell <i>e.g. Profound lethargy, restless</i>
Pulse rate	<input type="checkbox"/> 50 - 99 bpm	<input type="checkbox"/> 100 - 120 bpm	<input type="checkbox"/> > 120 bpm, weak radial pulse
Blood pressure	<input type="checkbox"/> Normal	<input type="checkbox"/> Orthostatic hypotension	<input type="checkbox"/> Shock, systolic BP < 90 mmHg
Perfusion	<input type="checkbox"/> Peripherally warm	<input type="checkbox"/> Peripherally cool	<input type="checkbox"/> Cool and clammy
Mucous membranes	<input type="checkbox"/> Moist	<input type="checkbox"/> Dry	<input type="checkbox"/> Sunken eyes, ↓ skin turgor
Urine output	<input type="checkbox"/> Normal or dark urine	<input type="checkbox"/> Decreased	<input type="checkbox"/> ↓ or no urine
Fluid tolerance	<input type="checkbox"/> Tolerating fluids	<input type="checkbox"/> Tolerating no or minimal fluids	<input type="checkbox"/> Tolerating no fluids
Nr Diarrhoea episodes	<input type="checkbox"/> ≤ 5 / 24 hrs	<input type="checkbox"/> ≥ 6 / 24hrs	<input type="checkbox"/> ≥ 10 / 24hrs

= YES = NO

(PLACE PATIENT LABEL HERE)

SURNAME: _____ NHI: _____

FIRST NAMES: _____

Date of Birth: ____ / ____ / ____ SEX: _____

NURSING

MILD PATHWAY

- For most patients managed in the waiting room / cubicles area
- Make sure the patient understands the self assessment sheet. If not → nursing reviews every 20 mins
- Document all treatments on National Medication Chart (*patient self administered & nurse administered*)
- **All medications on this pathway are standing orders**

START	Time:	<input type="checkbox"/> Salbutamol 10 puffs via spacer
	PF:	<input type="checkbox"/> Prednisone 40mg oral
	Sign:	<input type="checkbox"/> Spacer technique taught / demonstrated <input type="checkbox"/> Self assessment sheet given and explained
20 mins after Rx started	Time:	<input type="checkbox"/> Worse → Moderate pathway <input type="checkbox"/> Spacer technique
	PF:	<input type="checkbox"/> Static → Salbutamol 10 puffs via spacer <input type="checkbox"/> adequate
	Sign:	<input type="checkbox"/> Better → Observe with no treatment <input type="checkbox"/> not adequate
40 mins after Rx started	Time:	<input type="checkbox"/> Worse → Moderate pathway <input type="checkbox"/> Spacer technique
	PF:	<input type="checkbox"/> Static → Salbutamol 10 puffs via spacer <input type="checkbox"/> adequate
	Sign:	<input type="checkbox"/> Better → Observe with no treatment <input type="checkbox"/> not adequate
60 mins after Rx started	Time:	<input type="checkbox"/> Worse → Moderate pathway <input type="checkbox"/> Spacer technique
	PF:	<input type="checkbox"/> Static → Salbutamol 10 puffs via spacer <input type="checkbox"/> adequate
	Sign:	<input type="checkbox"/> Better → Observe with no treatment <input type="checkbox"/> not adequate
Nursing: Mandatory review now. Continue hourly reviews ED unless directed otherwise		
Clinician: Consider discharge if only one treatment given. <i>Discharge criteria page 7</i>		
2 hrs after Rx started	Time:	<input type="checkbox"/> Worse → Moderate pathway
	PF:	<input type="checkbox"/> Static → Salbutamol 10 puffs - further treatment individualised as per clinician or Lead SMO if no sign-on Clinician
	Sign:	<input type="checkbox"/> Better → Observe with no treatment
Clinician: Best Care Bundle prescribed care now concluded Consider discharge if no treatment given in the last hour. <i>Discharge criteria page 7</i> Otherwise document further care plan in EM notes		

BEST CARE BUNDLE - PATHWAY

= YES = NO

(PLACE PATIENT LABEL HERE)

SURNAME: _____ NHI: _____

FIRST NAMES: _____

Date of Birth: ____ / ____ / ____ SEX: _____

NURSING

MODERATE PATHWAY

- Any deterioration → senior Dr review ASAP NSH 3366 WTH 7799
- **All medications on this pathway are standing orders.**
- Document all treatments on National Medication Chart (*patient self administered & nurse administered*)
- **Salbutamol: Spacer preferred method unless not tolerated by patient or directed by clinician**

START	Time:	<input type="checkbox"/> Salbutamol <input type="checkbox"/> 10 puffs spacer or <input type="checkbox"/> 5 mg neb <i>If moved from Mild pathway repeat the Salbutamol</i>
	PF:	<input type="checkbox"/> Ipratropium Bromide <input type="checkbox"/> 4 puffs spacer or <input type="checkbox"/> 500 mcg neb <input type="checkbox"/> Prednisone 40 mg oral (<i>if not given already</i>)
	Sign:	<input type="checkbox"/> Spacer technique taught / demonstrated <input type="checkbox"/> Self assessment sheet given and explained
20 mins after Rx started	Time:	<input type="checkbox"/> Worse → Salbutamol <input type="checkbox"/> spacer or <input type="checkbox"/> neb → <input type="checkbox"/> Dr review: <input type="checkbox"/> move to monitored space <input type="checkbox"/> Spacer technique
	PF:	<input type="checkbox"/> Static → Salbutamol <input type="checkbox"/> spacer or <input type="checkbox"/> neb <input type="checkbox"/> adequate
	Sign:	<input type="checkbox"/> Better → Salbutamol <input type="checkbox"/> spacer or <input type="checkbox"/> neb <input type="checkbox"/> not adequate
40 mins after Rx started	Time:	<input type="checkbox"/> Worse → Salbutamol <input type="checkbox"/> spacer or <input type="checkbox"/> neb → <input type="checkbox"/> Dr review: <input type="checkbox"/> move to monitored space <input type="checkbox"/> Spacer technique
	PF:	<input type="checkbox"/> Static → Salbutamol <input type="checkbox"/> spacer or <input type="checkbox"/> neb <input type="checkbox"/> adequate
	Sign:	<input type="checkbox"/> Better → Salbutamol <input type="checkbox"/> spacer or <input type="checkbox"/> neb <input type="checkbox"/> not adequate
60 mins after Rx started	Time:	<input type="checkbox"/> Worse → Salbutamol <input type="checkbox"/> spacer or <input type="checkbox"/> neb → <input type="checkbox"/> Dr review: <input type="checkbox"/> move to monitored space <input type="checkbox"/> Spacer technique
	PF:	<input type="checkbox"/> Static → Salbutamol <input type="checkbox"/> spacer or <input type="checkbox"/> neb <input type="checkbox"/> adequate
	Sign:	<input type="checkbox"/> Better → Observe without treatment <input type="checkbox"/> not adequate
Nursing: Mandatory review now. Continue hourly reviews ED unless directed otherwise		
Clinician: Consider early admission if little improvement in clinical picture <i>Admission criteria page 7</i>		
2 hrs after Rx started	Time:	<input type="checkbox"/> Worse → Salbutamol <input type="checkbox"/> spacer or <input type="checkbox"/> neb → <input type="checkbox"/> Dr review: <input type="checkbox"/> move to monitored space. Consider admission
	PF:	<input type="checkbox"/> Static → Salbutamol <input type="checkbox"/> spacer or <input type="checkbox"/> neb Consider admission
	Sign:	<input type="checkbox"/> Better → Observe: OBS ward if discharge likely. Individualised care plan
Clinician: Best Care Bundle prescribed care is now concluded. Please document further instructions and care plan in clinical notes		

BEST CARE BUNDLE - PATHWAY

(PLACE PATIENT LABEL HERE)

SURNAME: _____ NHI: _____

FIRST NAMES: _____

Date of Birth: ____/____/____ SEX: _____

CROUP

Indicate findings below by: Positive / given OR Negative / not given *All boxes must be populated*

Inclusion Criteria

Date:	Time:	Name:	Sign:
<input type="checkbox"/> Age < 6 months → STOP - NOT SUITABLE FOR THIS CARE BUNDLE ↳ ED Senior Medical or Paediatric Registrar review without delay			
<input type="checkbox"/> Age > 6 months with stridor, barking cough and / or hoarse voice → CONTINUE ↳ Initiate Best Care Bundle "Croup" on Whiteboard <i>Include patients who have received treatment en route who are currently asymptomatic</i>			

Initial Nursing assessment - Aim to complete by 30 minutes

History, examination and vital signs recorded on the Nursing Assessment Sheet.

Croup Assessment Tool applied and appropriate pathway started. (see page 2)

↳ Initial Pathway: Mild Moderate Severe

Red Flags → Senior Medical or Paediatric Registrar review without delay

- CAT "Severe" or Hypoxia (Sats < 94%) → **Move to Resus and inform Paediatric Team**
- Sudden onset, no prodromal illness, history of choking (? Foreign body)
- Urticarial rash (? Anaphylaxis) Allergies associated with Anaphylaxis in the past
- Not immunised (? Epiglottitis) High fever and toxic appearance (? Bacterial Tracheitis / Epiglottitis)
- Known syndromes (e.g. Down Syndrome) or airway issues (Laryngo-tracheo malacia, Haemangiomas)

Pathway discontinued:

Time: _____ Sign: _____

- Completed normally Individualised management Alternative diagnosis

Admission Guidelines - When to refer for Paediatric review

If history of poor compliance with treatment after discharge in the past or suspicion that compliance is likely to be poor after discharge, discuss with Paediatric Team.

- Moderate symptoms persist Any other significant concerns or high risk of deterioration
 - Required 2 or more doses of Adrenaline
 - Transport issues if needed to come back to ED
- Significant co-morbidities

Sample Signatures

Name	Signature	Initials	Name	Signature	Initials

(PLACE PATIENT LABEL HERE)

SURNAME: _____ NHI: _____

FIRST NAMES: _____

Date of Birth: ____/____/____ SEX: _____

Indicate findings below by: Positive / given OR Negative / not given *All boxes must be populated*

Croup Assessment Tool (CAT)

If features from more than one category "mild", "moderate" or "severe" are present, score the highest category

	Mild	Moderate	Severe
Behaviour:	Normal	Some or intermittent irritability	Increasing irritability or lethargy
Stridor:	Barking cough Stridor only when active or upset	Some stridor at rest	Stridor present at rest
Respiratory rate:	Normal	Increased	Marked increase or decrease
Accessory muscle use:	None or Minimal	Tracheal tug Nasal flaring Moderate chest wall retraction	Tracheal tug Nasal flaring Marked chest wall retraction
Hypoxia or oxygen requirement:	None	None or Minimal	Saturations < 94%

Mild Pathway → review every 30 minutes

At each review: Record vital signs and then select management option.

	Nursing review	Time: _____	Sign: _____
START	Calming and comforting measures, avoid distressing interventions. <input type="checkbox"/> Cough with no other signs → Observe only <input type="checkbox"/> Cough and other signs or Adrenaline Neb en route → Oral Dexamethasone 0.15 mg/kg (max 12 mg) if not already given.		
	Nursing review	Time: _____	Sign: _____
30 min	CAT <input type="checkbox"/> Severe → Move to Resus, start severe pathway <input type="checkbox"/> Moderate → Move to moderate pathway and alert clinician of deterioration. <input type="checkbox"/> Mild → Continue nursing cares ↳ If discharge seems likely initiate clinician review now		
	Nursing review	Time: _____	Sign: _____
60 min	CAT <input type="checkbox"/> Severe → Move to Resus, start severe pathway <input type="checkbox"/> Moderate → Move to moderate pathway and alert clinician of deterioration. <input type="checkbox"/> Mild → Discharge if discharge guidelines on page 4 are met.		

BEST CARE BUNDLE - PATHWAY

BEST CARE BUNDLE - PATHWAY



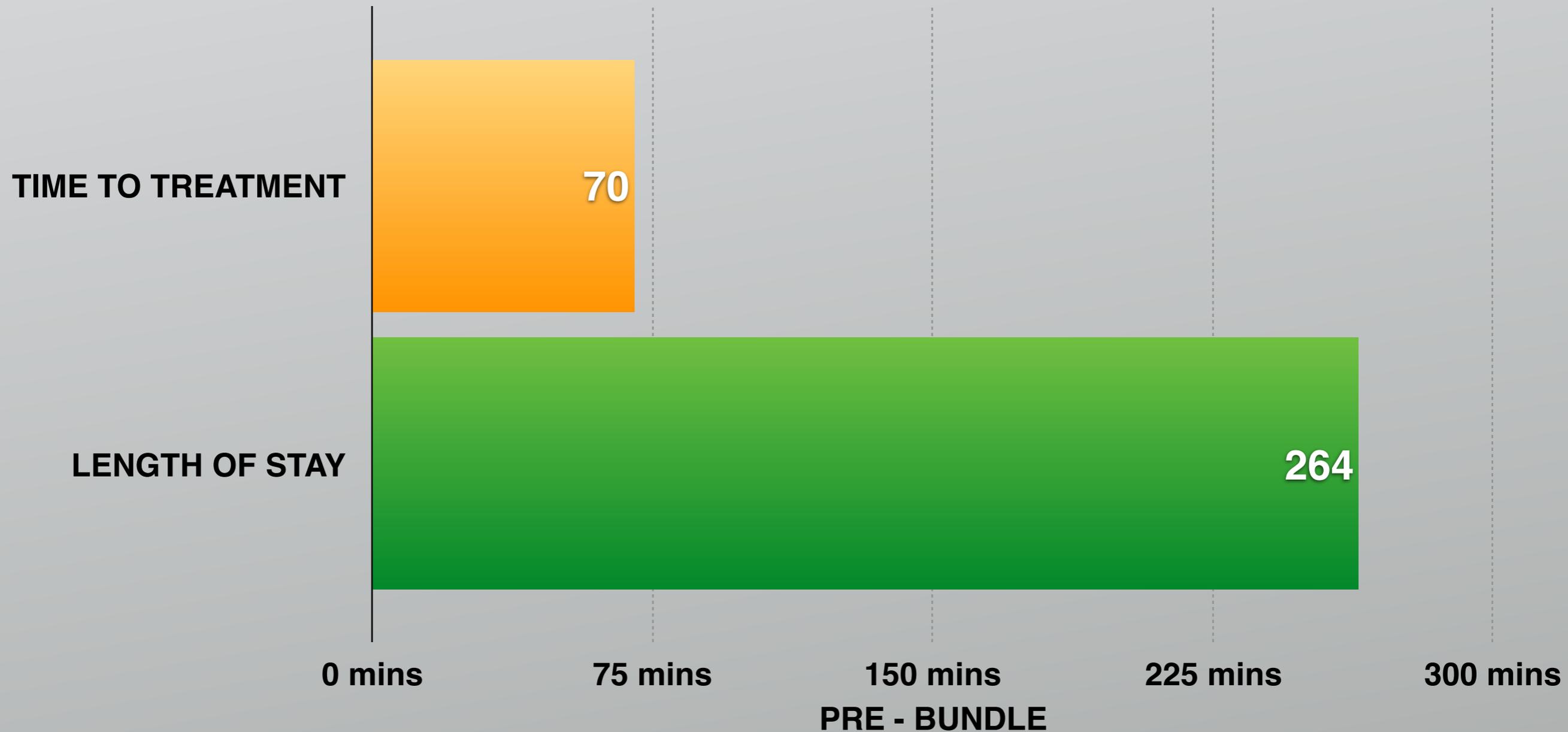
Croup Assessment Tool (CAT)			
If features from more than one category "mild", "moderate" or "severe" are present, score the highest category			
	Mild	Moderate	Severe
Behaviour:	Normal	Some or intermittent irritability	Increasing irritability or lethargy
Stridor:	Barking cough Stridor only when active or upset	Some stridor at rest	Stridor present at rest
Respiratory rate:	Normal	Increased	Marked increase or decrease
Accessory muscle use:	None or Minimal	Tracheal tug Nasal flaring Moderate chest wall retraction	Tracheal tug Nasal flaring Marked chest wall retraction
Hypoxia or oxygen requirement:	None	None or Minimal	Saturations < 94%

Mild Pathway → review every 30 minutes
At each review: Record vital signs and then select management option.

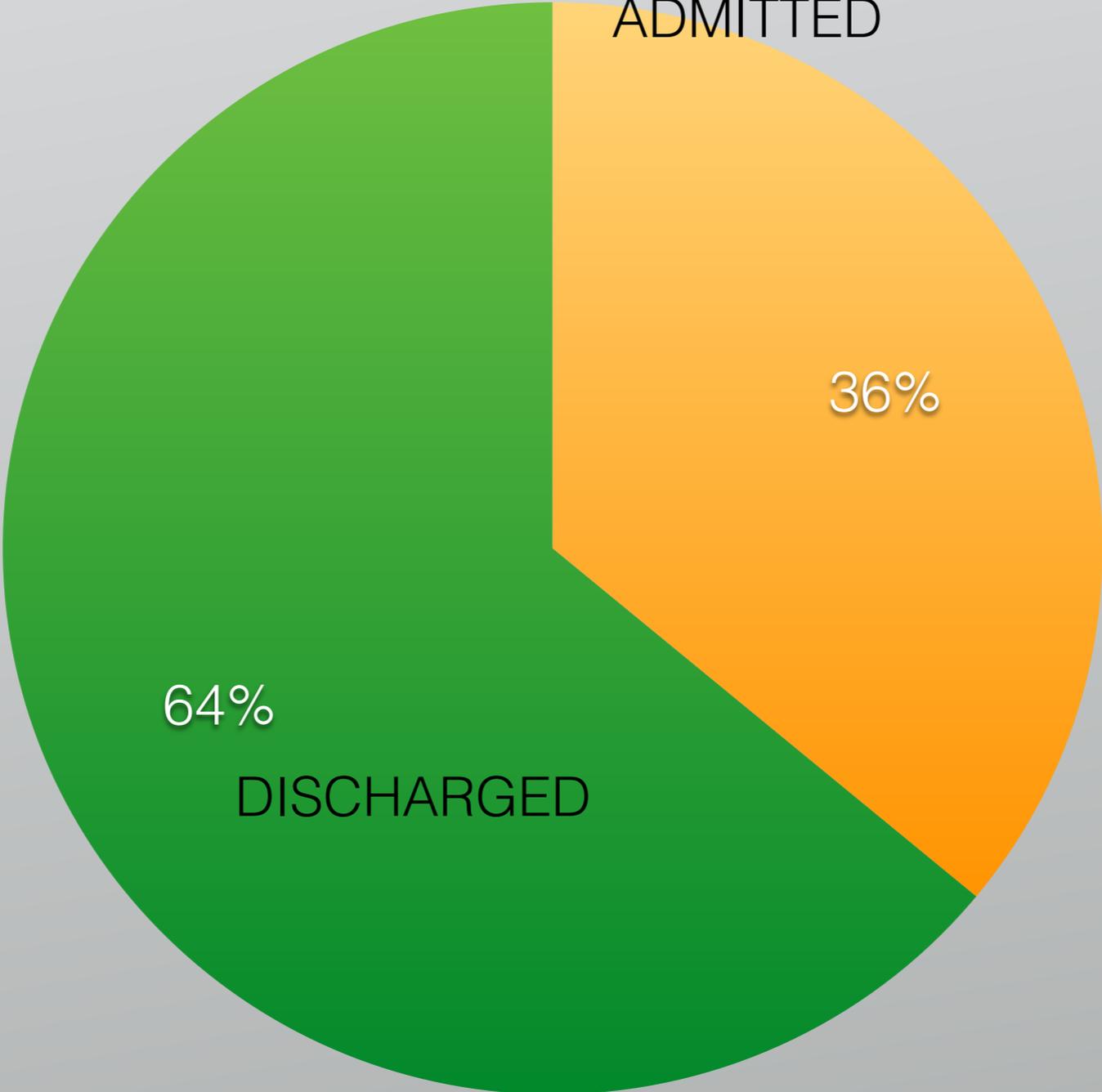
START	Nursing review	Time:	Sign:
	Calming and comforting measures, avoid distressing interventions.		
	<input type="checkbox"/> Cough with no other signs → Observe only <input type="checkbox"/> Cough and other signs or Adrenaline Neb en route → Oral Dexamethasone 0.15 mg/kg (max 12 mg if not already given.		

30 min	Nursing review	Time:	Sign:	
	CAT	<input type="checkbox"/> Severe	→ Move to Resus, start severe pathway	
		<input type="checkbox"/> Moderate	→ Move to moderate pathway and alert clinician of deterioration.	
		<input type="checkbox"/> Mild	→ Continue nursing cares	
↳ If discharge seems likely initiate clinician review now				

CROUP Best Care Bundle

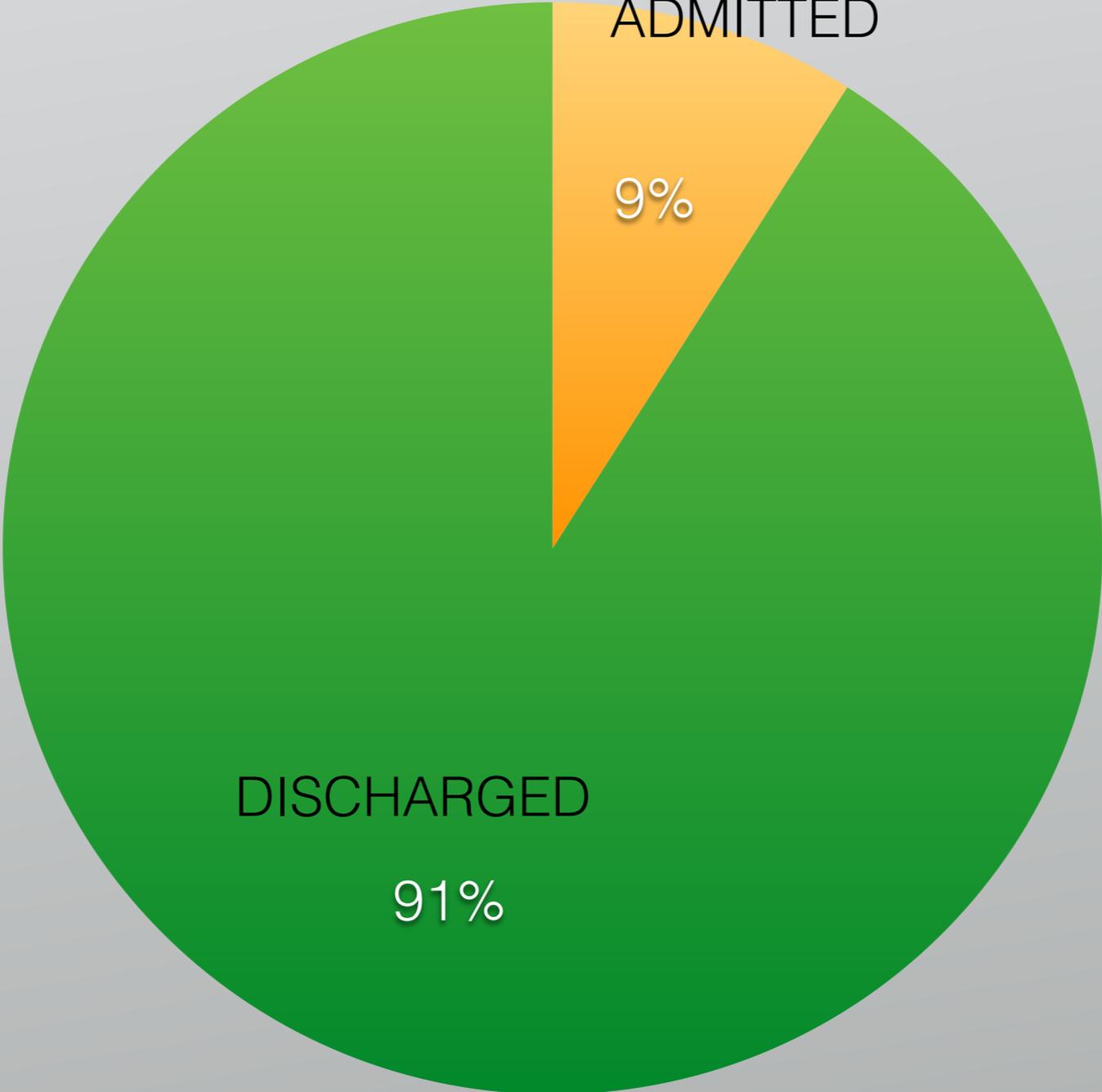


CROUP Best Care Bundle



PRE - BUNDLE

CROUP Best Care Bundle

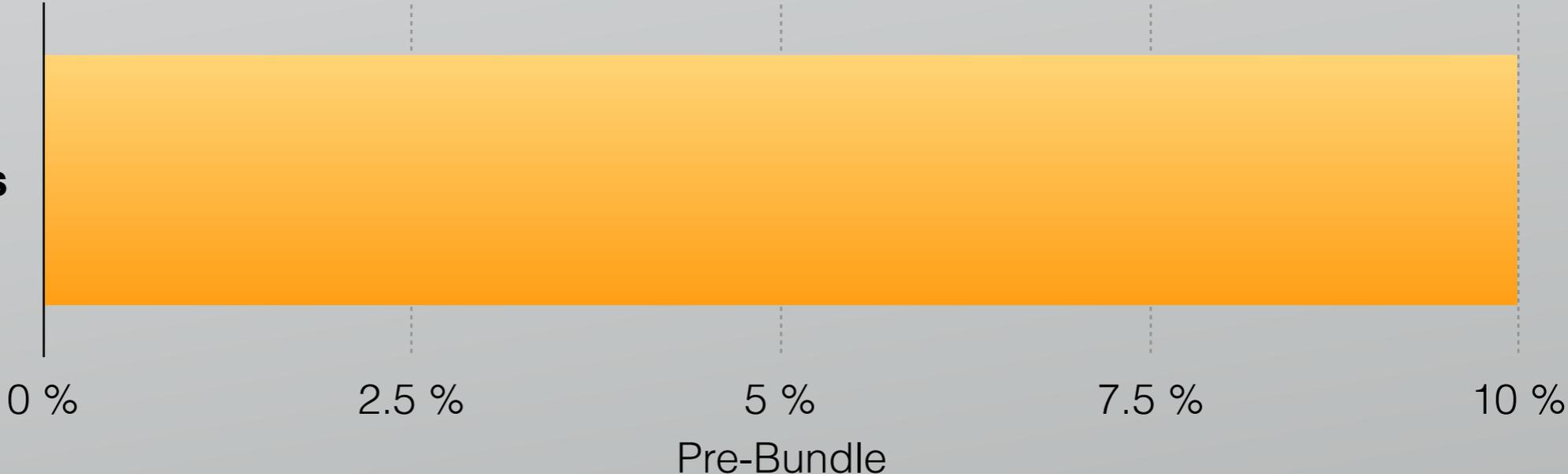


POST - BUNDLE

CROUP Best Care Bundle



Representations



= YES = NO

(PLACE PATIENT LABEL HERE)

SURNAME: _____ NHI: _____

FIRST NAMES: _____

Date of Birth: ____ / ____ / ____ SEX: _____



FORMULARY / MEDICATION OPTIONS

CHECK ALLERGY STATUS AND SEE MEDSAFE OR OTHER TEXT FOR FULL LIST OF CONTRAINDICATIONS**
ALL MEDICATIONS MUST BE CHARTED ON THE NATIONAL MEDICATION CHART

ANALGESIA FOR USE IN HOSPITAL AND ON DISCHARGE

Note: Please prescribe regular and PRN dosing, especially on discharge

Medication	Dose	Route	Freq	Notes
Paracetamol	1 g	Oral	Q 6 hourly	Standing order
Ibuprofen	400 mg	Oral	Q 6-8 hourly	Standing order Up to 800 mg TDS. (Max 2400 mg/day) Ensure normal eGFR (> 60 ml / 1.73 m ²)
Codeine phosphate	30 - 60 mg	Oral	Q 6 hourly	Standing order. Max 400 mg / day Constipating. Consider laxative or stool softeners
Morphine	5 mg (max)	IV	SLOW push	Standing order. < 50 kg = 0.1 mg/kg IV > 50 kg = 5 mg

ALTERNATIVE ANALGESIA

Tramadol	50-100 mg	Oral	4-6 hourly	High Side effect profile. ↓ seizure threshold Max 400 mg / day
Diclofenac SR	75 mg	Oral	Twice daily	Ensure normal eGFR (>60 ml/1.73 m ²) Max 150 mg Daily. Consider Omeprazole 20 mg PO daily. GI upset common
Amitriptyline	10 mg	Oral	Nocte	Option for discharge. Increasing to 20 mg nocte
Baclofen	5 mg	Oral	TDS	Caution in known Psychiatric patients and elderly. Causes drowsiness. ↓ seizure threshold, and GI upset
Diazepam	2 - 5 mg	Oral		Note: Only at senior doctor discretion where muscle spasm significant. Not for routine use.
Rapid release oxycodone (eg Oxynorm ® liq or cap)	5 mg	Oral	1 hourly PRN	Max 30 mg / 24h. Safer in renal impairment. Constipating Liquid formulation not available in ED. (Source from ADU) 2.5 mg Liquid oxynorm equivalent to 5mg oral morphine
Rapid release morphine (eg Sevredol ®)	5 - 10 mg	Oral	1-4 hourly	Max 60mg/24h. Care in renal impairment. Constipating
Ketamine	10-20 mg	IV		For severe unremitting pain only. SMO guidance.

ADDITIONAL INFORMATION

Bundle documents	Best Care Bundle Low Back Pain full guideline - via Emergency Medicine CeDSS site
ACC Guideline	http://www.acc.co.nz/PRD_EXT_CSMP/groups/external_ip/documents/Internet/wcm002131.pdf ACC New Zealand Acute Low Back Pain Guide
Health Point Guidelines	www.healthpointpathways.co.nz

TOP TIPS

Acute low back pain is a common presentation. Our key roles include:

- Pain relief and mobilisation
- Ensure that serious underlying illness or pathology is absent.

Most patients will be able to leave the hospital after assessment however serious illness does occur and may be subtle and overlooked, especially in the early stages. *e.g. epidural abscess, discitis and osteomyelitis.* Rarely other conditions cause back pain that is not from the spine. *e.g. aortic pathology / renal colic.* Beware of the patient with immunosuppression and raised inflammatory markers.

= YES = NO

Date of Birth: ____ / ____ / ____

SEX: _____



BEST CARE BUNDLE - PATHWAY

FORMULARY / MEDICATION OPTIONS

CHECK ALLERGY STATUS AND SEE MEDSAFE OR OTHER TEXT FOR FULL LIST OF CONTRAINDICATIONS**
ALL MEDICATIONS MUST BE CHARTED ON THE NATIONAL MEDICATION CHART

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Baclofen	5 mg	Oral	TDS	Caution in known Psychiatric patients and elderly. Causes drowsiness, ↓ seizure threshold, and GI upset
Diazepam	2 - 5 mg	Oral		Note: Only at senior doctor discretion where muscle spasm significant. Not for routine use.
Rapid release oxycodone (eg Oxynorm ® liq or cap)	5 mg	Oral	1 hourly PRN	Max 30 mg / 24h. Safer in renal impairment. Constipating Liquid formulation not available in ED. (Source from ADU) 2.5 mg Liquid oxynorm equivalent to 5mg oral morphine
Rapid release morphine (eg Sevredol ®)	5 - 10 mg	Oral	1-4 hourly	Max 60mg/24h. Care in renal impairment. Constipating
Ketamine	10-20 mg	IV		For severe unremitting pain only. SMO guidance.

ADDITIONAL INFORMATION

Bundle documents	Best Care Bundle Low Back Pain full guideline - via Emergency Medicine CeDSS site
ACC Guideline	http://www.acc.co.nz/PRD_EXT_CSMP/groups/external_ip/documents/internet/wcm002131.pdf ACC New Zealand Acute Low Back Pain Guide
Health Point Guidelines	www.healthpointpathways.co.nz



FORMULARY / MEDICATION OPTIONS
CHECK ALLERGY STATUS AND SEE MEDSAFE OR OTHER TEXT FOR FULL LIST OF CONTRAINDICATIONS**
ALL MEDICATIONS MUST BE CHARTED ON THE NATIONAL MEDICATION CHART

	Antibiotic recommendations	Dose	Route	Freq	Duration	NOTES	
LOWER UTI (Cystitis)	Asymptomatic Bacteriuria	Treatment not indicated unless: • Immune compromised • Urological pt's undergoing procedures • Pregnant (See 'pregnancy' below for treatment)					
	Uncomplicated	<input type="checkbox"/> Nitrofurantoin* or	50 mg	Oral	QID	5 days	* Contraindicated if CrCl < 30
		<input type="checkbox"/> Trimethoprim or	300 mg	Oral	OD	3 days	
		<input type="checkbox"/> Amoxicillin/Clavulanic acid	625 mg	Oral	TDS	3 days	
	Pregnancy	<input type="checkbox"/> Nitrofurantoin* or	50 mg	Oral	QID	5 days	* Caution > 28/40 * Contraindicated > 36/40 * Contraindicated if CrCl < 30 Repeat culture to ensure clearance.
<input type="checkbox"/> Cefaclor		500 mg	Oral	TDS	10 days		
Catheter associated (uncomplicated)	<i>If systemically well</i> <input type="checkbox"/> Cefaclor or <input type="checkbox"/> Norfloxacin	500 mg 400 mg	Oral Oral	TDS BD	7 days 5-7 days	Replace IDC, especially if in situ for >2 weeks. Consider removal of catheter if possible.	
	<i>If systemically unwell</i> <input type="checkbox"/> Cefuroxime or <input type="checkbox"/> Gentamicin*	750 mg 3 mg/kg*	IV IV	8 hourly Stat		Review previous urine cultures to guide treatment. * Gentamicin dose use Ideal Body Weight. See note below	
Catheter associated ESBL colonised (uncomplicated)	<i>If systemically well</i> <input type="checkbox"/> Nitrofurantoin* or <input type="checkbox"/> Pivmecillinam* or <input type="checkbox"/> Fosfomycin*	50 mg 400 mg 3 g	Oral Oral Oral	QID BD Q 3 days	5-7 days 5 days 2 doses	* Contraindicated if CrCl < 30 * Pivmecillinam & Fosfomycin need ID approval. Dispensed from hospital pharmacy. Pivmecillinam is a Penicillin. Contraindicated in penicillin allergy	
	<i>If systemically unwell</i> <input type="checkbox"/> Meropenem	500 mg	IV	8 hourly		Meropenem needs ID approval. Covers Pseudomonas. It has cross reactivity with penicillin. Consult ID if history of severe penicillin allergy	

*Gentamicin & Amikacin should initially be dosed on Ideal Body Weight. ♂ = (height in cm - 150) x 0.9 + 50 / ♀ = (height in cm - 150) x 0.9 + 45.5
Further dosing should then be guided by therapeutic drug monitoring – see Aminoglycoside protocol CeDSS. Use with caution in existing or impending renal failure. There is still a risk of ototoxicity even with stat dose. Use for max 48 hrs. Both provide reasonable anti-pseudomonal cover

UPPER UTI (Pyelonephritis)	Pyelonephritis (uncomplicated)	<i>If systemically well</i> <input type="checkbox"/> Norfloxacin or	400 mg	Oral	BD	7-10 days	NOTE: Nitrofurantoin, fosfomycin and pivmecillinam NOT recommended for upper UTI's
		<i>If systemically unwell</i> <input type="checkbox"/> Cefuroxime or <input type="checkbox"/> Gentamicin*	1.5 g 3-5 mg/kg	IV IV	8 hourly Stat		*Gentamicin and Amikacin: Use Ideal Body Weight. See note above
	Pyelonephritis ESBL colonised (uncomplicated)	<input type="checkbox"/> Meropenem or <input type="checkbox"/> *Amikacin or	1 g 12-20 mg/kg	IV IV	8 hourly Stat	5 days see note above	Meropenem & Amikacin: Needs ID approval. Meropenem has cross sensitivity with Penicillin. Contact ID if severe penicillin allergy
		<input type="checkbox"/> Norfloxacin▼	400 mg	Oral	BD	7-10 days	▼ Only if proven sensitive on prior culture
	Pyelonephritis (complicated)	As for uncomplicated systemically unwell		IV		10-14 days	Parenteral only. Senior review 2 sets of blood cultures
	Pregnancy	<input type="checkbox"/> Cefuroxime	1.5 g	IV	8 hourly		
Urosepsis (suspected or confirmed)	<input type="checkbox"/> Cefuroxime or <input type="checkbox"/> Gentamicin* <input type="checkbox"/> Meropenem (for known ESBL)	750 mg-1.5g 5 - 7 mg/kg 1 g	IV IV IV	8 hourly Stat 8 hourly		* Gentamicin dose use Ideal Body Weight. See note above	

= YES = NO

(PLACE PATIENT LABEL HERE)

SURNAME: _____ NHI: _____

FIRST NAMES: _____

Date of Birth: ____ / ____ / ____ SEX: _____



MINOR HEAD INJURY: GCS ≥ 13

Date: / / 20 Time: Clinician: CNS HS Reg SMO

HISTORY AND PRESENTING COMPLAINT

Mechanism: _____

Beware of injuries caused by weapon e.g. Baseball bat or hammer. High risk for skull #

↑

Loss of consciousness No Yes:

Amnesia No Yes: Retrograde Anterograde

Headache No Yes:

Seizure No Yes:

Nausea / vomiting No Yes:

Visual Δ No Yes:

Dizziness No Yes:

Tinnitus (new) No Yes:

MEDICAL HISTORY Nil relevant

Previous concussion / head injury

MEDICATION / ALLERGIES Nil regular

Warfarin Other anticoagulants: e.g. Clopidogrel, Dabigatran, Rivaroxaban. High risk of intracranial haemorrhage

No known allergies **ALLERGIES:**

FUNCTIONAL & SOCIAL HX

Independent Yes No *Details:*

Smoking history Non smoker Smoker:

ETOH IVDU Other recreational drugs:

Occupation

Living situation *To be discharged in the care of a responsible adult*

SVF Completed *Document on nursing assessment sheet*

EMERGENCY MEDICINE NOTES

= YES = NO

(PLACE PATIENT LABEL HERE)

SURNAME: _____ NHI: _____

FIRST NAMES: _____

Date of Birth: ____/____/____ SEX: _____



PERIPHERAL NEUROLOGICAL *Abnormal neurology is an indication for plain film imaging, if not done already*

POWER		Right	Left
Hip Flexion	L2		
Knee Extension	L3		
Ankle dorsiflexion	L4		
Great toe extension	L5		
Ankle eversion/plantar flex	S1		
Toe flexion	S2		

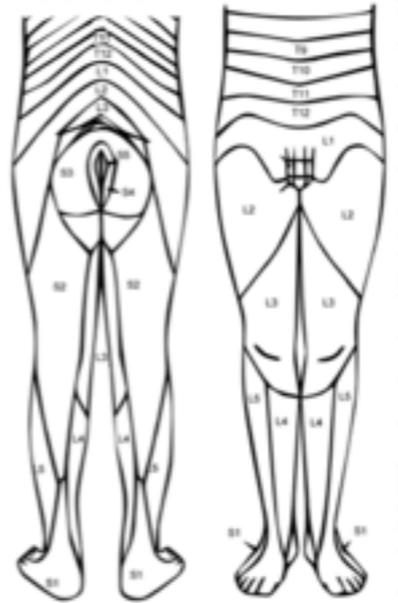
Oxford scale	
0	No voluntary contraction
1	Flicker - no movement
2	Movement if gravity eliminated
3	Movement against gravity
4	Movement against some resistance
5	Normal muscle strength
NT	Not testable (e.g. due to severe pain)

SENSATION Normal in all dermatomes

If abnormal: mark abnormal areas on the diagram on the right, and comment on:

2 point discrimination Normal or:

Sharp / blunt Normal or:



REFLEXES

Absent
 Reduced
 Average
 Brisk
 Normal
 Pathological

Plantar reflex: ↓ ↑ ↓ ↑

Clonus: - + - +



PR EXAMINATION Not performed

Indications:

- Saddle anesthesia
- Any abnormal neurology
- ? Cauda equina
- Presence of any red flags

Perianal sensation Normal

Tone Normal

Performed by Dr: _____



BACK EXAMINATION

Bony tenderness None

Skin / soft tissue Normal

MOBILITY Gait:

Heel walk:

Toe walk:

Range of motion:

Straight leg raise:

EMERGENCY MEDICINE



= YES = NO

(PLACE PATIENT LABEL HERE)

SURNAME: _____ NHI: _____

FIRST NAMES: _____

Date of Birth: ____/____/____ SEX: _____



NEUROLOGICAL EXAMINATION

GCS /15 E: ___ V: ___ M: ___ Alert Orientated to : time place person

Cranial nerve II Normal vision

PEARL

III, IV, VI FROEM LR6, SO4

V Normal Facial sensation. Motor masseter, temporalis

VII Normal Facial movements

VIII Normal Hearing, Rinne, Weber

IX, X Normal Gag, swallow

XI Normal Shoulder shrug

XII Normal Tongue protrusion

Power Normal in all myotomes

Sensation Normal in all dermatomes

Coordination Normal

Reflexes Normal

Gait Normal



Plantar reflex: ↓ ↑ ↓ ↑

Clonus: - + - +

0	Absent
±	Reduced
+	Average
++	Brisk Normal
+++	Pathological

MUSCULOSKELETAL / OTHER

C-SPINE

Midline tender No Yes

Motion range Normal

Absence of midline tenderness is a low risk factor (See Canadian C-spine rules page 4 Best Care Bundle pathway)



(PLACE PATIENT LABEL HERE)

SURNAME: _____ NHI: _____
 FIRST NAMES: _____
 DATE OF BIRTH: ____/____/____ SEX: _____

REFERRAL (Generated from ED)

DATE SENT : ____/____/____ DATE REC: ____/____/____
 FAX NO : _____ No of pages: _____

REFERRED TO : WDHB UROLOGY CLINIC
 Service / Ward _____ Clinician Name (print) _____

REFERRED BY : Emergency Medicine
 Service / Ward _____ Clinician Name (print) _____

 Clinician Designation Signature ext/locator

URGENCY

- Immediate - now Urgent - today Within 24 hrs Within 7 days
 Within 1 month Non-urgent Early Discharge

ACTIVE ISSUES

- 1 Acute urinary retention precipitated by:
 2 _____
 3 _____
 4 _____
 5 _____

ETHNICITY

- NZ European Maori
 Samoan Cook Island Maori
 Tongan Niuean
 Chinese Indian
 Other

ALERTS / ALLERGIES

- MRSA / ESBL and other multiresistant drugs
 Allergies
 Other:

INTERPRETER REQUIRED:

- Yes No

MOBILITY

- Walk Chair
 Trolley Ambulance

REASON FOR REFERRAL

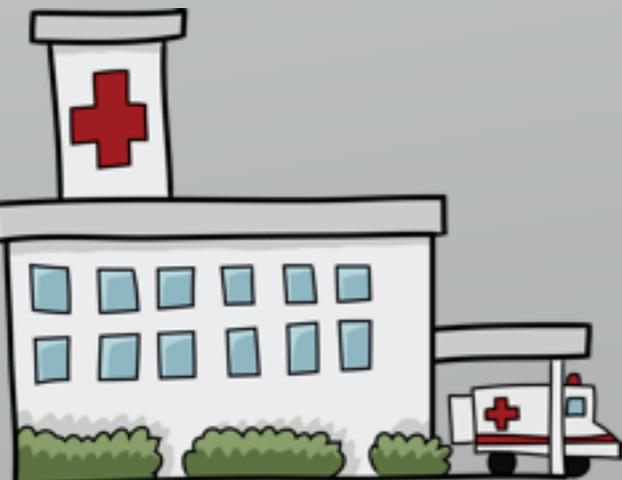
Thank you for follow up on this patient who presented with Acute Urinary Retention

The indication for follow up in your clinic is:

- Failed TROC Painless retention Difficult IDC placement
 New SPC Renal impairment Representation with clots
 Hydronephrosis Renal failure
 Recent lower urinary tract surgery <6 weeks

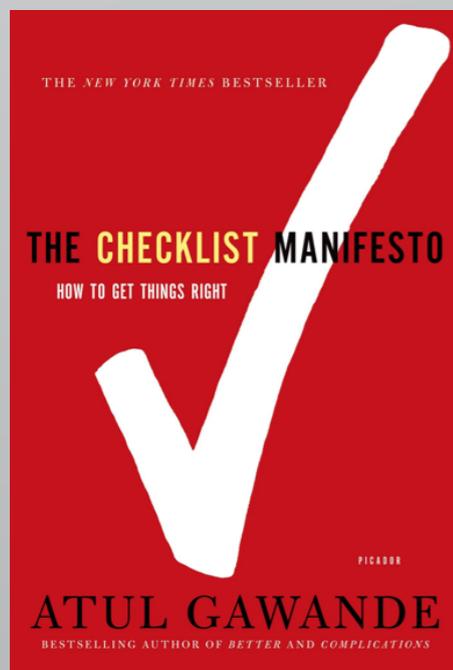
Please see the detailed Electronic Discharge Summary for additional information

REFERRAL





'Good checklists are precise. They are efficient, to the point, and easy to use, even in the most difficult situations'



'Good checklists are practical'

- Atul Gawande



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