|  |  |
| --- | --- |
| **RECORD TIMES** | **Use 24 hr clock** |
| Initial phone call |  |
| Arrival |  |
| Initial nurse assessment |  |
| Doctor informed |  |
| Doctor assessment |  |

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Addressograph

**Department of Paediatric Haematology and Oncology**

**Febrile Neutropenia Pathway**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Patient Arrival Time** |  | | **Nurse – PGD Competent** |  | |
| **Key Point** | | * Give first dose antibiotic within 60 minutes of arrival * Use PGD for Febrile Neutropenia * Tazobactam/Piperacillin is called Tazocin® in this pathway | | |

|  |  |  |
| --- | --- | --- |
| **Criteria for inclusion in PGD: Patient must meet all criteria** | **Yes** | **No** |
| Patient aged 0-18 years |  |  |
| Patient is on active treatment for cancer (or within 3 months of finishing treatment) |  |  |
| Patient is febrile with temperature 38˚C or above on one occasion |  |  |
| Patient has patent central venous access device in place |  |  |
| **Criteria for exclusion from PGD:** | **Yes** | **No** |
| Previous **anaphylactic** reaction to any antibiotic (See definition in *Allergy Review* section) |  |  |
| Previous **allergic** reactions to Tazocin® **and** Meropenem (See definition in *Allergy Review* section) |  |  |
| **Criteria for urgent review within 30 minutes:**  **Patient requires urgent medical review if any criteria present** | **Yes** | **No** |
| Temperature less than 35˚C **or** more than 39.5˚C |  |  |
| Systolic BP below normal parameters for age (See appendix 1) |  |  |
| Respiratory rate greater than 50 (under 2 years) or greater than 40 (over 2 years) breaths per minute |  |  |
| O2 Saturation less than 95% |  |  |
| Capillary refill time greater than 3 seconds |  |  |
| Blood Glucose 2.9 mmol/L or less |  |  |
| Rigoring |  |  |
| Mottled appearance |  |  |
| Altered mental state e.g. agitated, drowsy, fitting |  |  |

|  |  |  |  |
| --- | --- | --- | --- |
| **Urgent medical review required**  Time doctor informed: |  | **Arrival time of doctor:** |  |

|  |  |  |
| --- | --- | --- |
| **Initial Clinical Assessment** | | |
| **Date: Time:**  **Temp: BP: HR: RR: O2 Sats:**  **Capillary Refill Time: AVPU (See Appendix 1):**   * Inform doctor immediately if patient meets criteria for urgent medical review and stay with patient * Repeat observations hourly until medical review * Following first antibiotic dose -if observations fall outside normal parameters for age - get urgent medical review and stop PGD   **Weight**  **kg**  **kg**  **....**  **..**  **Weight (without shoes):**  **A second nurse must check weight** | | |
| **Previous allergic reactions** | | |
| Febrile neutropenia pathway definitions   * **Allergic reaction**: Minor rash with no associated breathing difficulty or circulatory shock   *Note*: Diarrhoea is a side effect and does not constitute an allergic reaction\*   * **Anaphylactic (severe allergic) reaction:**   A rapid, severe hypersensitive reaction -> Breathing problems, circulatory shock,  requiring adrenaline mucosal swelling, itchy rash with hives  a.) Previous **anaphylactic reaction** to **any** antibiotic? YES NO (circle as appropriate)    b.) Previous **allergic reaction** to penicillin? YES NO    Specify which penicillin Tazocin®? YES NO Other? ............................................  c.) Previous **allergic reaction** to Meropenem? YES NO    **STOP! Do not proceed with PGD if:**   * Previous anaphylactic reaction to **any** antibiotic * Previous allergic reaction to penicillin (including Tazocin®) **and** Meropenem   \* Consultant will review continuing use of Tazocin® for patients with history of Tazocin® related diarrhoea within 24hr | | |
| **Inform doctor of patient’s arrival: document time** |  | |
| **Signature of nurse undertaking initial assessment:** |  | |
| **Cultures & blood tests** | | Time Taken |
| FBC, U+E, LFT, CRP, Lactate, Ca, Phos, Mg, BM | |  |
| Blood cultures from all CVAD lumens | |  |
| **Other cultures: Do not delay giving IVAB to obtain** | |  |
| MSU and ward urinalysis (Under 5’s or symptomatic) | |  |
| **Swab if clinically indicated:** | |  |
| CVAD site | |  |
| Skin lesions | |  |
| Throat swabs | |  |
| Stool cultures | |  |
| Other (specify) | |  |

|  |
| --- |
| **Administer first-line antibiotic**  Nurses must have successfully completed competence assessment for use of Febrile Neutropenia PGD |

|  |  |  |  |
| --- | --- | --- | --- |
| **No history of allergic reaction to Tazocin® or other penicillin**  **PLEASE NOTE: Contraindicated if patient is receiving High dose IV Methotrexate of >1gm/m2** | | | |
| Administer **Tazocin®** under PGD: **90mg/kg** (Dose can be rounded up to the nearest whole number)  Patient Weight = kg  Calculated Dose = mg  Time Given:  Attach PGD sticker to patient’s Medication Record | | | |
| Nurses signatures: |  | Print names: |  |
|  |  |

|  |  |  |  |
| --- | --- | --- | --- |
| **Positive history of allergic (not anaphylactic) reaction to Tazocin® or other penicillin**  **Or patient is receiving High dose IV Methotrexate of >1gm/m2**  **No history of allergic reaction to Meropenem** | | | |
| Administer **Meropenem** under PGD: **20mg/kg** (Dose can be rounded up to the nearest whole number)  Patient Weight **=** kg  Calculated Dose = mg  Time Given:  Attach PGD sticker to patient’s Medication Record | | | |
| Nurses  Signatures |  | Print names |  |
|  |  |

|  |  |  |  |
| --- | --- | --- | --- |
| **Ongoing management**  **Patient must be seen by doctor within 4 hours of arrival time or sooner if clinically indicated** | | | |
| * Record patient observations hourly until medical review * Maintain record of fluid input/output * Encourage oral fluids | | | |
| Doctor arrival time: |  | Doctor signature: |  |
| Print name: |  |

**Normal Ranges**

**Heart Rate by Age** **Respiratory Rate by Age** **Systolic Blood Pressure by Age**

<1...........110-160 <1..............30-40 <1.............70-90

1-2..........100-150 1-2............25-35 1-2............80-95

2-5..........95-140 2-5............25-30 2-5............80-100

5-12........80-120 5-12..........20-25 5-12..........90-110

>12.........60-100 >12...........15-20 >12...........100-120

|  |  |
| --- | --- |
| A | ALERT |
| V | Responds to VOICE |
| P | Responds to PAIN |
| U | UNRESPONSIVE |

**Respiratory observations should be coded using the key below**

|  |  |  |  |
| --- | --- | --- | --- |
| **AIRWAY** | Stridor = **S** | Grunting = **G** | Nasal Flaring = **F** |
| **BREATHING** | Recession = **R** | Accessory  Muscles = **A** | Audible  Wheeze = **W** |

**Sedation Score**

|  |  |
| --- | --- |
| **Awake** | **0** |
| **Dozing Intermittently** | **1** |
| **Mostly Sleeping, Easily Woken** | **2** |
| **Difficult to Wake** | **3** |
| **Normal Sleep** | **S** |

Addressograph

**OBSERVATION & PAIN ASSESSMENT CHART**

SPECIAL INSTRUCTIONS (e.g. Blood Pressure Cut Off)

Date

Time

**40**

**39**

**38** 240

230

**37** 220

210

**36**  200

190

**35**  180

170 170

160 160

150 150

140 140

130 130

120 120

110 110

100 100

90 90

80 80

70 70

60 60

50 50

40 40

Resp Rate Resp Rate

Resp Obs Resp Obs

O² Therapy O² Therapy

SaO² SaO²

P 10 10 P

A 9 9 A

I 8 8 I

N 7 7 N

6 6

S 5 5 S

C 4 4 C

O 3 3 O

R 2 2 R

E 1 1 E

0 0

AVPU/ AVPU/

Sedation Sedation

Nausea Nausea

Yes/No Yes/No

Neuro Obs Neuro Obs

Yes/No Yes/No

Blood Blood

Glucose Glucose

Weight Weight

Comments Comments