**新生兒抗生素劑量表 Neonatal Antibiotics Dosage Schedules**

20190501 小兒科藥劑科共同制訂

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  |  | | Body weight **<1kg** | **1-2kg** | **>2kg** |
| **Penicillin G:** general infection ( IU/kg/dose) | | | | | |
|  | Age≦7d | | 5萬IU/kg Q12H | 5萬IU/kg Q12H | 5萬IU/kg Q8H |
|  | 8-14 d | | 5萬IU/kg Q12H | 5萬IU/kg Q8H | 5萬IU/kg Q6H |
|  | 15-28 d | | 5萬IU/kg Q8H | 5萬IU/kg Q8H | 5萬IU/kg Q6H |
| Penicillin G: **meningitis** | | | | | |
|  | Age≦7d | | 12.5萬IU/kg Q12H | 12.5萬IU/kg Q12H | 12.5萬IU/kg Q8H |
|  | 8-14 d | | 12.5萬IU/kg Q12H | 12.5萬IU/kg Q8H | 12.5萬IU/kg Q6H |
|  | 15-28 d | | 12.5萬IU/kg Q12H | 12.5萬IU/kg Q8H | 12.5萬IU/kg Q6H |
| Penicillin G：  **Congenital Syphilis:** 5萬IU/kg/dose Q12H during the first 7 days of life, and thereafter  5萬IU/kg/dose Q8H, for a total of 10 days  **GBS meningitis: 50-60**萬IU/kg/day (參考馬偕)  Age≦ 7days 25- 45萬IU/kg/day divided Q8H; Age: 8-28 days 45-50萬IU/kg/day divided Q6H (參考 NeoFax) | | | | | |
| **Amoxicillin 500mg+ Clavulanic acid 100mg ( Augmentin)**:  the dose is based on TOTAL drug not the amoxicillin component  Oral: Age ≥7days 30mg/kg/dose q8h  IV: 30mg/kg/dose, PMA≦ 37weeks Q12H; PMA 37-44weeks Age≦ 6days Q12H, Age ≥7days Q8H | | | | | |
| **Oxacillin:** general infection | | | | | |
|  | Age≦7d | | 25 mg/kg Q12H | 25 mg/kg Q12H | 25 mg/kg Q8H |
|  | 8-14 d | | 25 mg/kg Q12H | 25 mg/kg Q8H | 25 mg/kg Q6H |
|  | 15-28 d | | 25 mg/kg Q8H | 25 mg/kg Q8H | 25 mg/kg Q6H |
| Oxacillin: **meningitis** | | | | | |
|  | Age≦7d | | 50 mg/kg Q12H | 50 mg/kg Q12H | 50 mg/kg Q8H |
|  | 8-14 d | | 50 mg/kg Q12H | 50 mg/kg Q8H | 50 mg/kg Q6H |
|  | 15-28 d | | 50 mg/kg Q8H | 50 mg/kg Q8H | 50 mg/kg Q6H |
| **Cefazolin:**  general infection | | | | | |
|  | Age≦7d | | 25 mg/kg Q12H | 25 mg/kg Q12H | 50 mg/kg Q12H |
|  | 8-14 d | | 25 mg/kg Q8H | 25 mg/kg Q8H | 50 mg/kg Q8H |
|  | 15-28 d | | 25 mg/kg Q8H | 25 mg/kg Q8H | 50 mg/kg Q8H |
| **Cefotaxime (Claforan):** general infection (100-150 mg/kg/day) | | | | | |
|  | Age≦7d | | 50 mg/kg Q12H | 50 mg/kg Q12H | 50 mg/kg Q12H |
|  | 8-14 d | | 50 mg/kg Q12H | 50 mg/kg Q8H | 50 mg/kg Q8H |
|  | 15-28 d | | 50 mg/kg Q8H | 50 mg/kg Q8H | 50 mg/kg Q8H |
| Cefotaxime:  **meningitis;** 200 mg/kg/day ; interval 比照上述表格所示 (參考馬偕)。  **Meningitis:** use smaller doses and longer intervals for neonates <2 kg (參考Neofax)  Age≦7days 100-150mg/kg/day Q12-Q8H  8-28 days 150-200mg/kg/day Q8H-Q6H | | | | | |
| **Ceftriaxone (Rocephin)**: **Sepsis:** Use cefotaxime in place of ceftriaxone if hyperbilirubinemia or receiving calcium-containing intravenous solutions | | | | | |
|  |  | | Body weight **<1kg** | **1-2kg** | **>2kg** |
|  | Age≦7d | | 50 mg/kg QD | 50 mg/kg QD | 50 mg/kg QD |
|  | 8-14 d | | 50 mg/kg QD | 50 mg/kg QD | 50 mg/kg QD |
|  | 15-28 d | | 50 mg/kg QD | 50 mg/kg QD | 75 mg/kg QD |
| **Ceftriaxone:**  meningitis: In neonates, IDSA guidelines suggest cefotaxime as the preferred nonpseudomonal third-generation cephalosporin; no ceftriaxone dosing is provided in the guidelines. | | | | | |
| **Ceftazidime (Fortum):**  general infection | | | | | |
|  | Age≦7d | | 50 mg/kg Q12H | 50 mg/kg Q12H | 50 mg/kg Q12H |
|  | 8-14 d | | 50 mg/kg Q12H | 50 mg/kg Q8H | 50 mg/kg Q8H |
|  | 15-28 d | | 50 mg/kg Q8H | 50 mg/kg Q8H | 50 mg/kg Q8H |
| Ceftazidime: **Meningitis: use smaller doses and longer intervals for neonates <2 kg**  **Age≦7days 100-150 mg/kg/day divided Q12-Q8H**  **8-28 days 150 mg/kg/day divided Q8H** | | | | | |
|  | Age≦7d | | 50 mg/kg Q12H | 50 mg/kg Q12H | 50 mg/kg Q12H |
|  | 8-14 d | | 50 mg/kg Q8H | 50 mg/kg Q8H | 50 mg/kg Q8H |
|  | 15-28 d | | 50 mg/kg Q8H | 50 mg/kg Q8H | 50 mg/kg Q8H |
| **Cefepime**: mild to moderate infection: 30mg/kg Q12H | | | | | |
| Cefepime: pneumonia or **meningitis** (due to Pseudomonas aeruginosa or Enterobacter spp) | | | | | |
|  | Age≦7d | | 50 mg/kg Q12H | 50 mg/kg Q12H | 50 mg/kg Q12H |
|  | 8-14 d | | 50 mg/kg Q12H | 50 mg/kg Q8H | 50 mg/kg Q8H |
|  | 15-28 d | | 50 mg/kg Q8H | 50 mg/kg Q8H | 50 mg/kg Q8H |
| **Piperacillin 2G+ Tazobactam 0.25G (Tapimycin)**: Dose base on **piperacillin componen**t | | | | | |
|  | Age≦7d | | 100 mg/kg Q12H | 100 mg/kg Q12H | 100 mg/kg Q8H |
|  | 8-14 d | | 100 mg/kg Q12H | 100 mg/kg Q8H | 80 mg/kg Q6H |
|  | 15-28 d | | 100 mg/kg Q8H | 100 mg/kg Q8H | 80 mg/kg Q6H |
| **Meropenem**: general infection | | | | | |
|  | Age≦7d | | 20 mg/kg Q12H | 20 mg/kg Q12H | 20 mg/kg Q8H |
|  | 8-14 d | | 20 mg/kg Q12H | 20 mg/kg Q8H | 30 mg/kg Q8H |
|  | 15-28 d | | 20 mg/kg Q8H | 20 mg/kg Q8H | 30 mg/kg Q8H |
| Meropenem: **meningitis** | | | | | |
|  | Age≦7d | | 40 mg/kg Q12H | 40 mg/kg Q12H | 40 mg/kg Q8H |
|  | 8-14 d | | 40 mg/kg Q12H | 40 mg/kg Q8H | 40 mg/kg Q8H |
|  | 15-28 d | | 40 mg/kg Q8H | 40 mg/kg Q8H | 40 mg/kg Q8H |
| **Clindamycin:**  general infection dose 5 mg/kg/dose; infusion > 30-60min | | | | | |
|  | Age≦7d | | 5 mg/kg Q12H | 5 mg/kg Q12H | 5 mg/kg Q8H |
|  | 8-14 d | | 5 mg/kg Q12H | 5 mg/kg Q8H | 5 mg/kg Q6H |
|  | 15-28 d | | 5 mg/kg Q8H | 5 mg/kg Q8H | 5 mg/kg Q6H |
| **Metronidazole:** Loading dose: 15 mg/kg; (參考 馬偕), IV drip> 0.5-1hour, at conc < 8mg/ml  Maintenance dose: as below | | | | | |
|  | Age≦7d | | 7.5 mg/kg QD | 7.5 mg/kg Q12H | 7.5 mg/kg Q8H |
|  | 8-14 d | | 7.5 mg/kg QD | 7.5 mg/kg Q12H | 10 mg/kg Q8H |
|  | 15-28 d | | 7.5 mg/kg QD | 7.5 mg/kg Q12H | 10 mg/kg Q8H |
| **Acyclovir**: this dosage for herpes simplex virus infection  Treat localized infections for 14 days; disseminated or CNS infections for 21 days. Dilute to a final concentration**≦7 mg /mL**; IV infusion over 60 minutes | | | | | |
|  |  | | Body weight **<1kg** | **1-2kg** | **>2kg** |
|  | Age≦7d | | 20 mg/kg Q12H | 20 mg/kg Q12H | 20 mg/kg Q8H |
|  | 8-14 d | | 20 mg/kg Q12H | 20 mg/kg Q8H | 20 mg/kg Q8H |
|  | 15-28 d | | 20 mg/kg Q8H | 20 mg/kg Q8H | 20 mg/kg Q8H |
| **Age-directed dosing:**   |  |  |  | | --- | --- | --- | |  |  | † Postmenstrual age (PMA) is gestational age plus postnatal age.  PMA is the primary determinant of dosing interval with postnatal age as the secondary qualifier | |  |  | Renal function and drug elimination are strongly correlated with postmenstrual age. | | | | | | |
| **Ampicillin:** general infection: **100 mg/kg/day**  Ampicillin: Group B streptococcal bacteremia (GBS) **sepsis:** 200mg/kg/day | | | | | |
|  | PMA(weeks) | | Postnatal (days) | Dose (參考上述) | Interval (hours) |
|  | ≤29 | | 0-28 |  | 12 |
|  | ≧ 29 |  | 8 |
|  | 30 to 36 | | 0-14 |  | 12 |
|  | ≥15 |  | 8 |
|  | 37 to 44 | | 0-7 |  | 12 |
|  | ≧ 8 |  | 8 |
|  | ≥45 | | ALL |  | 6 |
| Ampicillin: **GBS meningitis:** 0-7 days: 200 to 300 mg/kg/day divided Q8H  8 days and older: 300 mg/kg/day divided Q6 H | | | | | |
| **Gentamicin:**  Draw peak 30 min after completion infusion; draw trough just before the next dose (於第4個dose給藥前) | | | | | |
|  | PMA(weeks) | | Postnatal (days) | Dose(mg/kg) | Interval (hours) |
|  | ≦\*29 | | 0 to 7 | 5 | 48 |
|  | 8 to 28 | 4 | 36 |
|  | ≧29 | 4 | 24 |
|  | 30 - 34 | | 0 to 7 | 4.5 | 36 |
|  | ≧8 | 4 | 24 |
|  | 35 - 44 | | ALL | 4 | 24 |
| \*or significant asphyxia, PDA, or treatment with indomethacin | | | | | |
| **Amikacin:**  Draw peak 30 min after completion infusion; draw trough just before next dose (於第4個dose給藥前) | | | | | |
|  | PMA(weeks) | | Postnatal (days) | Dose(mg/kg) | Interval (hours) |
|  | ≦\*29 | | 0 to 7 | 18 | 48 |
|  | 8 to 28 | 15 | 36 |
|  | ≧29 | 15 | 24 |
|  | 30 - 34 | | 0 to 7 | 18 | 36 |
|  | ≧8 | 15 | 24 |
|  | 35 - 44 | | ALL | 15 | 24 |
| **Vancomycin:**  Dilute to a final concentration ≦5 mg/mL; IV infusion over 90 minutes  Draw **trough level** within 30 mins before the fourth dose. **peak level** 60 mins after end of infusion | | | | | |
|  | PMA(weeks) | | Postnatal (days) | **sepsis** 10mg/kg/dose  **meningitis** 15mg/kg/dose | **Interval (hours)** |
|  | ≤29 | | 0 to 14 |  | 18 |
|  | ≥15 |  | 12 |
|  | 30 to 36 | | 0 to 14 |  | 12 |
|  | ≥15 |  | 8 |
|  | 37 to 44 | | 0 to 7 |  | 12 |
|  | ≥8 |  | 8 |
|  | ≥45 | | ALL |  | 6 |
| **Teicoplanin (Tagocid)**: loading dose 16 mg/kg/dose, followed by 8 mg/kg/dose QD | | | | | |
| **Linezolid:** **Oral, IV.** Bacteremia, community/ hospital-acquired pneumonia, skin infections.  Vancomycin-resistant Enterococcus faecium (VREF) infection | | | | | |
|  | | Gest. Age (wks) | Post Natal (days) | Dose(mg/kg) | Interval(hours) |
|  | | <34 | 0 to 7 | 10 | 12 |
|  | | ≥8 | 10 | 8 |
|  | | 34-44 | 0-28 | 10 | 8 |
| **Fluconazole: Invasive Candidiasis** Duration of therapy for candidemia: 2 weeks after documented clearance of Candida from the bloodstream and resolution of symptoms (without metastatic complications)  **Treatment:** loading dose 25 mg/kg  **Prophylaxis:** 3 mg/kg/dose, twice **weekly**, duration up to 6 weeks | | | | | |
|  | | Gest. Age (wks) | Post Natal (days) | Maintenance Dose(mg/kg) | Interval(hours) |
|  | | ≤29 | 0 to 14 | 12 | 48 |
|  | | ≥15 | 12 | 24 |
|  | | 30 -44 | 0 to 7 | 12 | 48 |
|  | | ≥8 | 12 | 24 |

資料來源:

\*Micromedex- Neofax，\* Uptodate 2019,

\*Pediatric & neonatal dosage handbook 2018

† Remington and Klein's Infectious Diseases of the Fetus and Newborn Infant 8th edit 2016

\*馬偕醫院新生兒加護病房工作手冊，2018.