### Gentamycin Sulfate

[IGMM1]Gentamycin® 80mg/2mL/AmpATC Code : J01GB03[IGMV1]Gentamycin® 80mg/2mL/AmpATC Code : J01GB03

中文名: 健達黴素注射液 《壽元》

適應症: 革蘭氏陽性、陰性菌、立克次氏體及巨型濾過性病毒感染症。

藥理分類: Antibiotic, Aminoglycoside.

用法用量: Administration:

**IM:** Administer by deep IM route if possible.

**IV:** Dilute in 50-200 mL NS or D5W; infuse over 30 minutes with traditional dosing, over 1 hr with once-daily dosing.

### **General dosage:**

### -Adults:

Treatment of **serious infections:** 

IV or IM, 3 mg/kg/day given in 3 equally divided doses every 8 hours.

Treatment of **life-threatening infections**:

IV or IM,  $\leq 5$  mg/kg/day given in 3 or 4 equally divided doses. Dosage should be reduced to 3 mg/kg/day when clinically indicated.

## **Conventional/traditional dosing:**

# Gentamicin Dose Adjustments for Altered Kidney Function in Adults

CrCl (mL/minute)	based on a usual dosage range of 3 to 5 mg/kg/day
≥60	No dosage adjustment necessary.
40 to <60	Administer usual dose every 12 hours.
20 to <40	Administer usual dose every 24 hours.
<20	Administer usual dose every 36 to 48 hours.

**\***adjust dose and/or interval based on gentamicin serum concentrations.

### \*There are no dosage adjustments provided in the manufacturer's labeling.

#### -Neonates:

- < 1 week of age: IV or IM
- 2.5 mg/kg Q18-24h for those weighing < 1.2 kg;
- 2.5 mg/kg Q12h for those weighing  $\geq$  1.2 kg.
- 1-4 weeks of age: IV or IM
- 2.5 mg/kg Q18-24h for those weighing < 1.2 kg;
- 2.5 mg/kg Q8h or Q12h for those weighing 1.2-2 kg,
- 2.5 mg/kg Q8h for those weighing > 2 kg.
- **-Children**  $\geq$  1 month of age: IV or IM

3-7.5 mg/kg given in 3 divided doses for treatment of severe infections. Inappropriate for mild to moderate infections according to AAP.

不良反應: 腎毒性、第八對腦神經毒性(耳蝸&前庭神經)、神經肌肉麻痹(與麻醉劑或肌 肉鬆弛劑並用時)。

一級互斥: 1.Aminoglycosides 與 loop diuretics (如 furosemide)這兩類藥品分別都具有耳毒性,當兩者並用時可能因此發生聽覺毒性加重的協同(synergistic)作用,而造成程度不一的聽覺傷害,甚至永久性的聽力喪失。

2.如臨床確認兩藥有併用之必要時,應嚴格控制使用劑量並於治療前對聽力進行 基準測驗,治療過程中定期監測聽力變化情形及 aminoglycoside 的血中濃度。對 腎功能不全的病人,應適度調降使用劑量,以避免增加聽覺毒性發生的機率。

#### 注意事項:

- 1.避免與 β-lactams 混合於注射劑中使用,因會使 aminoglycosides 失去活性。
- 2.為避免其副作用產生,應監測其血中濃度。其有效治療範圍為: Peak 5-12 mcg/mL, Trough < 2 mcg/mL。
- 3.投用期間勿超過10天。
- 4. 腎機能障礙患者依 Clcr 調整劑量。
- 5. 静脈輸注:成人單一劑量可用 50~200ml NS 或 D5W 稀釋,小孩及嬰兒稀釋 量應減少,以 0.5~2 小時輸注。

#### 懷 孕 期:

1.Gentamycin 的動物試驗,並無顯示生殖損傷或對胎兒造成傷害。 當給予懷孕婦女 Gentamycin,尚未知道是否會造成胎兒傷害或影響生殖能力。因此若懷孕期使用或準備懷孕時,病患皆須被告知藥物可能會對胎兒造成傷害。

- 2. Aminoglycosides may cause fetal harm if administered to a pregnant woman.
- 3. Gentamicin use has been evaluated for various infections in pregnant women including the treatment of acute pyelonephritis (*Jolley 2010*) and as an alternative antibiotic for prophylactic use prior to cesarean delivery (*Bratzler 2013*).

#### 授 乳 期:

- 1.少量的 gentamicin 可能分泌至母乳中,小心使用。
- 2. The World Health Organization (WHO) considers gentamic to be compatible with breastfeeding. Infants should be monitored for thrush and diarrhea (WHO 2002).

相容輸注液: D5W、D10W、Fructose 5%、NS、Ringer's inj. 等。

\*\*全民健保醫療常用第一線抗微生物製劑