Question 22
A 30 year old hospital staff member presents 24 hours after being exposed to a patient with confirmed measles. There is no prior history of measles or vaccination against measles.

The most appropriate management is:
   A) Normal immunoglobulin
   B) Ribavarin
   C) Measles live attenuated vaccine
   D) Aciclovir
   E) Observation

Answer: C

Post measles exposure prophylaxis
- 1st choice within 72 hours: live attenuation measles vaccine
- If contraindicated: Immune serum immunoglobulin within 6 days (can prevent/modify course of disease)
- Immune serum globulin especially indicated in exposed individuals for whom the risk of complications of measles is increased
  - pregnant women
  - contacts less than one year of age
  - immunocompromised hosts
  - individuals previously vaccinated, but now immunocompromised

Contraindication to measles vaccination
1) Pregnancy
   - Theoretical risk of birth defects
   - If vaccinated, women of child bearing age should avoid pregnancy for 1/12
2) Immunosuppressed
   - HIV (unless CD4 < 200)
   - Leukaemia in remission (only ok after 3/12 post terminating chemotherapy)
   - Steroids (equivalent of prednisolone 20mg/day for > 14 days)
3) Febrile illness (unless mild)
4) Thrombocytopenia
5) Allergies
   - Anaphylaxis to gelatin or neomycin
   - Egg anaphylaxis not contraindicated
6) Recent administration of immunoglobulin or blood products
   - Diminished vaccine efficacy after passive immunisation
   - Thus those who’ve received IV Ig should only be vaccinated >3/12 later

Treatment
1) Supportive
   - paracetamol, fluids, treatment of superimposed bacterial infection
2) Vitamin A
   - some studies showed benefit in areas of Vitamin A deficiency or if mortality rates from measles > 1%
3) Ribavarin
   - susceptible in-vitro
   - route: IV versus aerosolised
   - no RCT to assess benefit
   - no benefit from acyclovir (acivlovir used to treat varicella zoster and HSV)
Measles in pregnancy
- increased risk of serious complications for mother
- infants are protected by maternal antibodies (placental transfer)
- possible small teratogenic risk, prematurity and miscarriages
- measles in mother during delivery does not necessarily lead to measles in the baby
  (spectrum of disease)