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 anaphnylaxis 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)