INVESTIGATING PREGNANT WOMEN EXPOSED TO A RASH

Significant exposure is defined as 15 min in same room or face to face contact [for measles less exposure may be significant]

IgM refers to those antibodies that are produced immediately after an exposure to the disease, while IgG refers to a later response. IgG generally confers immunity to a patient so far as that particular disease is concerned.

Exposure to varicella, measles, rubella and parvovirus 19 in pregnancy can have adverse outcomes for non-immune mothers and their babies.

Consider postnatal vaccination in women identified at risk of rubella, measles and varicella. [Varicella vaccination is now provide for people aged 70/78/79]

Features of Congenital Rubella syndrome include:

- deafness in about 80%
- heart defect or patent ductus arteriosus in about 60%
- mental retardation in about 55%
- retinopathy, described as salt and pepper, in about 50%
- cataract in about 30%
- glaucoma
- microencephaly
- hepatosplenomegaly, retarded growth, thrombocytopenia
- osteitis

Features of Congenital Varicella Syndrome

- hypoplasia of one limb
- cicatricial lesions with a dermatomal distribution
- neurological abnormalities:
- hydrocephalus
- microcephaly
- Horner's syndrome
- eye abnormalities:
- cataracts
- chorioretinitis
- microphthalmia
- growth retardation
- gastrointestinal structural defects
- genitourinary structural defects

Viral rashes: how to recognise them, incubation and infectivity periods and what to do!

Varicella zoster (chickenpox)

Infective & incubation period	Symptoms (in childhood)	Risks of infection
Infectious from 48h before rash appears until all lesions crusted Incubation 10–21d	Mild fever, malaise prodrome Vesicular rash – usually starts on head and spreads down to trunk	Severe illness in mother including 5× greater risk of pneumonitis 0–20w: congenital varicella (0.4–2%) 13–40w: shingles in infancy (1–2%) 4d before to 2d after delivery: severe neonatal varicella (20%)
Be reassured if:	**Test if:**	**Action***
Clear personal history of chickenpox/shingles (90% of women brought up in UK) Received varicella vaccine	No history of infection/vaccine History uncertain Woman from tropics/ subtropics (only 50% are immune)	Check varicella IgG urgently (ideally on stored booking bloods): • If IgG +ve no action is needed • If IgG –ve refer for VZIG (immunoglobulin); needs to be given within 72h of contact (or 10d of rash appearing in index case) • If they DON'T develop varicella consider postnatal vaccination

Rubella (notifiable)

Infective & incubation period	Symptoms (in childhood)	Risks of infection
Infectious 7d before rash to 10d after Incubation 14–21d	Low grade fever (1–5d) Mild URTI Maculopapular discrete pale pink rash (begins at hair line), fades to pale brown in 4d	<11w: 90% congenital rubella syndrome 11–16w: 20% congenital rubella syndrome 16–20w: small risk of deafness
Be reassured if:	**Test if:**	**Action***
2 doses of rubella vaccine 1 previous rubella vaccine AND at least ONE rubella antibody test result IgG >10IU/ml TWO rubella IgG antibody test results >10IU/ml (HPA guidance Jan 2011)	Unvaccinated or incomplete vaccination and no rubella antibody IgG results >10IU/ml as per criteria to left	Check rubella IgM and IgG: • If both negative repeat at 1m • If IgG >10IU/ml and no IgM reassure • Refer if IgM detected Consider termination if confirmed rubella <16w gestation HNIG (human normal Ig) for seronegative women who would not consider termination (though no evidence) Vaccinate with MMR postnatally

Measles (notifiable)

Infective & incubation period	Symptoms (in childhood)	Risks of infection
Infectious 4d before rash to 4d after Incubation 7–18d	High fever (2–4d) Cough, coryza, conjunctivitis Koplick spots Maculopapular dark red/purple rash (begins in hairline); may coalesce	Severe pneumonia in mother 0–40w: increased foetal loss, premature delivery, low birth weight Perinatal: severe measles
Be reassured if:	**Test if:**	**Action***
Full course MMR vaccine Two doses of measles-containing vaccine	Unvaccinated or incomplete vaccination	Check measles IgG: • If +ve reassure • If –ve refer urgently for HNIG which should be administered within 6d of exposure; give MMR postnatally

Parvovirus B19 (slapped cheek)

Infective & incubation period	Symptoms (in childhood)	Risks of infection
Infectious from 10d before rash to rash onset Incubation 13–18d	Low grade fever/URTI (2d) May be asymptomatic 'Slapped cheek' spares perioral area and nasal ridge	<20w: 9% excess foetal loss 3% develop hydrops with 50% mortality
Be reassured if:	**Test if:**	**Action***
Don't be! Clinically more difficult to diagnose – many will be immune without realising they had the illness!	Any pregnant woman with a good history of likely exposure	Test for parvovirus B19 IgM (remains positive for 1m) and IgG: • If IgG +ve and IgM –ve and within 1m exposure, reassure • If IgM and IgG –ve, repeat test in 1m • If at any stage IgM +ve, refer obstetrics (for foetal monitoring) No post-exposure prophylaxis is available

***For all the above, if serology results are not going to be available within the timeframe that immunoglobulin should be given in, then discuss with obstetricians and infectious disease teams for plan of action.**