VACCINATIONS IN SCD

Current recommendations

Rationale for different immunisation schedule in SCD

- Increased risk of certain infections- H.Influenzae, Str Pneumoniae, Neisseria meningitidis Mycoplasma, Salmonella typhi , Staph aureus, E.Coli
- Hyposplenism- particular risk from encapsulated organisms
- Impaired complement activation
- Impaired opsonisation
- Impaired antibody response to polysaccharide antigen
- Low IGM

Other reasons

- Increased likelihood of foreign travel
- Secondary bacterial infections post 'flu
- Increased chance of receiving blood transfusions

Diagnosis of hyposplenism

- No practical way of determining hyposplenism – pitted red cells
- Hyposplenism develops over time so may miss onset
- Leads to blanket approach for all SCD
- Is this correct for HbSC?

Prevalence of bacteraemia

- Despite risk – infrequent bacterial isolation
- Low threshold for antibiotic administration

Pneumococcal infection

- Invasive (30 out of 90 serotypes)
- Increased mortality in SCD in unvaccinated children or those not taking antibiotic prophylaxis
- Sequential regime of PCV followed by PPV highly effective
- Some evidence for infection with non vaccine serotypes
- PCV7 from 2006 and PCV 13 from 2009

Meningococcal disease

- Men C conjugate vaccine since 1999
- 90% invasive cases are serogroup B
- Other eg A,W135 and Y are rare in UK but more prevalent in other parts of the world
- Quadrivalent ACWY now recommended one month after the Hib/Men C at 1 year
- Additional booster of Hib/MenC at 2 years

H. Influenzae

- Conjugate vaccine introduced in 1992 with rapid and sustained reduction in invasive disease
- Additional booster now recommended with MenC at 2 years

current schedule

BCG Hepatitis B	At birth in selected cases depending on ethnic background and prevalence of TB At birth if mother HepBsAg+
DTaP/Hib/IPV + PCV	2 months
DTaP/Hib/IPV polio + MenC	3 months
DTaP/Hib/IPV + MenC + PCV	4 months
Hep B* + Hib/Men C	12 months
MMR + PCV + Hep B*	13 months
Hep B*	18 months
DTaP/Hib/IPV + MMR	From 3years 4 months
PPV	2 years
PPV	7 years
BCG	12-13 years
PPV	12 years
HPV	Girls 12-13 years
Td/IPV	13-18 years
PPV	17 years
Influenza Annually	From 6 months of age
* Optional	

New standards

- Review of guidelines for asplenic patients- British Committee for standards in haematology BJH 155 308-17
- Green Book DH 2011 amendments to advice for asplenic patients

Other considerations

- Removal in to UK – follow guidelines for vaccination for individuals with uncertain or incomplete immunisations (HPA- www. hpa.org.uk)
- Check recommendations in Green Book as these change frequently

2011 schedule

BCG Hepatitis B	At birth in selected cases depending on ethnic background and prevalence of TB At birth if mother HepBsAg+
DTaP/Hib/IPV + PCV	2 months
DTaP/Hib/IPV polio + MenC	3 months
DTaP/Hib/IPV + MenC + PCV	4 months
Hep B* + Hib/Men C	12 months
MMR + PCV + Hep B*	13 months
ACWY	15 months
Hep B*	18 months
DTaP/Hib/IPV + MMR	From 3years 4 months
PPV **+ HIb/MenC**	2 years
PPV	7 years
BCG	12-13 years
PPV	12 years
HPV	Girls 12-13 years
Td/IPV	13-18 years
PPV	17 years
Influenza Annually	From 6 months of age
* Optional	

Ongoing vigilance

- Education and information
- Immunisation
- Antibiotic prophylaxis
- Travel advice, vaccinations and malaria prophylaxis