Chickenpox in pregnancy

Chickenpox is more severe in pregnant women than in others of the same age. The mild immunosuppression associated with pregnancy is probably one of several factors that determine the severity of the chickenpox. It carries a risk of fulminating varicella pneumonia which can be rapidly fatal. Pregnant women with chickenpox should be closely observed and, if necessary, admitted to hospital so that their condition can be monitored and they can be treated promptly with antiviral agents.

All pregnant contacts of chickenpox without a definite history of chickenpox should be tested for Varicella-Zoster (V-Z) antibody before Human Varicella-Zoster Immunoglobulin (VZIG) is given since two-thirds of women have antibody despite a negative history of chickenpox. Only those without antibody require VZIG. It is important to note that VZIG does not prevent infection even when given within 72 hours of exposure. However, when given up to 10 days after exposure it may attenuate the disease in pregnant women. Since VZIG does not prevent infection it is not given to pregnant women with the intention of preventing congenital varicella syndrome.

When supplies of VZIG are short it may not be possible to issue it for pregnant contacts of chickenpox for whom treatment with antiviral agent is available.

Risks to the foetus and neonate from maternal chickenpox are related to the time of infection in the mother. The incidence of congenital varicella syndrome has been estimated at 2-5% of those infected in the 1st trimester of pregnancy. However, recent information suggests that the true risk may be below 1%. Reports of damage after maternal chickenpox or shingles in the 2nd and 3rd trimesters are rare. VZIG is recommended for the following infants up to 4 weeks after birth:-

- those whose mothers develop chickenpox (but not shingles) in the period 1 week (7 days) before to 1 month after delivery
- those in contact with chickenpox or shingles whose mothers have no history of chickenpox or who, on testing, have no antibody
- those in contact with chickenpox who are born before 30 weeks gestation or with a birth weight less than 1kg: these babies may not possess maternal antibody despite a positive history in the mother

Recently, in Glasgow, a number of pregnant women attending a clinic were exposed to a patient with chickenpox. Blood-test results were obtained quickly because blood taken previously for rubella sampling had been stored in the Regional Virus Laboratory and therefore was available for varicella-antibody testing.

Replacement of single-antigen tetanus vaccine

The Scottish Executive has recently written to all GPs regarding the replacement of single-antigen tetanus vaccine by combined tetanus and low-dose diphtheria vaccine for all routine uses. The single-antigen vaccine had been replaced by Td for the routine booster immunisation given to school-leavers in 1994.

This change had been advised by the JCVI because of the low levels of immunity to diphtheria in older people in the UK.

Td should now be used:

- for primary immunisation of adults and adolescents previously unimmunised against tetanus
- where booster doses of tetanus are indicated e.g., following a tetanus-prone wound or for the purposes of travel

For life-long immunity against tetanus and diptheria a total of 5 doses of vaccine (Td) are considered sufficient. The full course might be made up of the primary immunisation course (3 doses) followed by school entry (1 dose) and school leaving (1 dose) boosters or as a primary course at any time followed by a booster 10 years later and a further booster 10 years after that.
Booster doses are therefore **ONLY** indicated for the following:

- where a tetanus-prone wound has occurred in an individual who has **NOT** received the full 5-dose course or where the immunisation status of the individual is unknown (if the wound is contaminated, a dose of human tetanus immunoglobulin should be given).

- for travellers to areas where medical attention may not be accessible should a tetanus-prone injury occur and the individual’s last dose of vaccine was more than 10 years previously.

Where an adult or adolescent is fully immunised against tetanus but not against diphtheria then the single-antigen low dose diphtheria vaccine can be used. If it’s not available (which sometimes happens) then the combined vaccine can be used.

Stocks of the combined vaccine can be ordered from Aventis Pasteur MSD. However, practices should continue to use existing stocks of adsorbed tetanus vaccine before changing to the combined vaccine.

**Mercury poisoning from fish-rich diet**

The Food Standards Agency (FSA) has recently released a statement (10th May) on the consumption of shark, swordfish and marlin. Routine surveillance carried out by the FSA found that, in the UK, these types of fish contain relatively high levels of mercury.

Consumption of these fish is generally low in this country, and it is advised that there is no risk to adults who eat average portions (140g) of these fish no more than once per week.

There are, however, theoretical risks to infants, children and to the developing foetus. The greatest risk is for babies in utero as mercury can damage the developing nervous system; infants and children may also be at greater risk from mercury poisoning because they eat more food relative to their body size in comparison with adults. The Agency has therefore issued the following interim advice until research findings have been studied in more detail.

**Infants, children under 16 years of age and women who are, or may become, pregnant should avoid eating these fish.**

Levels of mercury in other fish does not give cause for concern, and the FSA continues to advise the consumption of 2 portions of fish a week, one of which should be oily, such as salmon, sardines or mackerel.

Women who breastfeed can follow the advice for the general population as mercury does not pass into breast milk in large amounts so the occasional consumption of these types of fish is unlikely to be harmful. However, as these women may also become pregnant, they may wish to avoid eating such fish.

Mercury occurs naturally in the environment and can also be released into the air through industrial pollution. It can then get into surface water building up in streams and oceans. Bacteria in water cause mercury to change into the more toxic methylmercury. Fish absorb methylmercury from water as it passes over their gills and as they feed on aquatic organisms. Larger predator fish are exposed to higher levels of methylmercury as they live longer and eat a larger number of fish during their lifetime.

Interestingly, this department is presently investigating elevated mercury levels in a family in GGNHSB who consumed large amounts of these particular fish.

For more details call the FSA **(020 7276 8000)**

**Food safety**

The Infection Control Team and Support Services (PCT) will participate in the National Food Safety Week 10th - 16th June 2002. The aim is to highlight the importance of food safety and basic principles of food hygiene to everyone involved in food preparation e.g., safe storage of food, temperature control, avoiding cross contamination, kitchen cleanliness and hand-washing. It is anticipated that information leaflets on these subjects will be available at selected sites throughout the Trust but more details will be provided nearer the time. If you require any further information please contact a member of the Primary Care Trust Infection Control Team on **211 3568**.

**MMR-info leaflets**

We announced in April’s edition of the newsletter that the new MMR-information leaflets would routinely be sent with the MMR appointment card to all parents/guardians and that this would commence in May. However, due to some technical difficulties, this has been postponed until the July dispatch. Copies of the leaflet will also be distributed to all GPs and health visitors with this newsletter.

**Hand-hygiene web addresses**

We referred to the hand-hygiene self-directed learning website in a previous newsletter but apparently some people had problems accessing the site. Here is the amended website address:


If you have any comments about this newsletter then please contact Dr Marie Laurie on **0141 201 4933**