

# Recommendations for spacing of dTap vaccine following td vaccines

for health professionals...

## Recommendations for spacing of dTap vaccine following Td vaccines

When booster doses of toxoid-containing vaccines such as tetanus and diphtheria are given frequently and close together the frequency and relative severity of local reactions can be increased. Ensuring a minimum spacing between doses of vaccines containing these toxoids reduces the risk of severe local reactions.

There is a general recommendation that at least 2 years should lapse between administration of tetanus/ diphtheria containing vaccines and the pertussis-booster vaccine dTap in order to minimise the risk of local reactions. The delay in administration of dTap can be waived if there is pertussis disease in the community and the recipient is likely to be at high risk of contracting pertussis and/or spreading it to high risk populations.

## Common local reactions to dTap

- Pain at the injection site (severe 2%)
- Swelling at the injection site (2.5% >50mm)
- Redness at the injection site (1.7% >50mm)

These reactions are more likely to occur and be greater if tetanus vaccine has been given less than 3-5 years previously compared with a longer gap. When administering dTap earlier than 2 years after a previous tetanus/diphtheria containing vaccine the vaccinee should be advised of the increased risk of a local reaction.

## Arthus Reaction

An arthus reaction is a type III hypersensitivity reaction involving the deposition of antigen/antibody complexes in various tissues including vascular walls. Arthus reactions have occasionally been reported after vaccination against diphtheria and tetanus. Arthus reactions are characterised by severe pain, swelling, induration, oedema, haemorrhage and occasionally by necrosis. Onset is usually 4-12 hours after vaccination.

In persons who have experienced an arthus reaction after a dose of tetanus toxoid-containing vaccine a minimum of 10 years should lapse between doses, including tetanus prophylaxis of wounds.

## References

1. Karen R. Broder, Margaret M. Cortese, John K. Iskander, et al. Preventing Tetanus, Diphtheria, and Pertussis Among Adolescents: Use of Tetanus Toxoid, Reduced Diphtheria Toxoid and Acellular Pertussis Vaccines: Recommendations of the Advisory Committee on Immunization Practices (ACIP). Morbidity and Mortality Weekly Report. 2006;55(RR03):1-34.