Pamidronate for Osteogenesis Imperfecta and Osteoporosis - Paediatric Summary Clinical Guideline

Reference no.: CH CLIN G 65/ Dec 16/v004

The initial assessment of the child with osteogenesis imperfecta and the suitability of Pamidronate treatment will be undertaken at a tertiary centre. The tertiary centre will decide the regime of the pamidronate (dose and regime varies between centres) and courses are usually given at 3 monthly intervals. If a child is going to receive treatment, the first course will be given at a tertiary centre as a 2 or 3 day patient admission. This will also include a bone density scan and, in some children, additional x-rays.

Pamidronate may be given on day case if the family are able to travel to the hospital on a daily basis for 2 or 3 days and the tertiary centre are happy for this to take place. Most children will alternate their 3 monthly treatments between the tertiary centre and Derbyshire Childrens hospital.

Treatment details:

1. Disodium Pamidronate in a dose of 1mg/kg made up with normal saline (250 or 500ml). Concentration not to exceed 30mg in 250ml.

2. Insertion of a reliable peripheral intravenous cannula or leaderflex line, which will, if possible remain in place for 2- 3 days.

3. Infusion of the solution over 4 hours over 2 or 3 consecutive days.

4. Treatment is repeated a 3 monthly intervals until indicated that treatment should stop. Some children may receive treatment for 1 year only whilst others may require a longer period of treatment.

Adverse effects:

It is unlikely that any will be experienced as any acute phase reaction tends to occur with the first treatment course. Possible adverse effects include hypocalcaemia (which is rarely symptomatic) and thrombophlebitis if the drip tissues.