

## Referring Guidelines for Paediatric Metabolic Bone Disease clinic 199C

Osteoporosis and Metabolic Bone Disease	Aims of clinical assessment	Treatment options:	The following patients should be referred to an endocrinologist or osteoporosis clinic (routine):
<p>Note: Core Services Report</p> <p>Determinants of fracture risk:</p> <ul style="list-style-type: none"> <li>• bone density</li> <li>• nutrition</li> <li>• muscle strength</li> <li>• mobility</li> <li>• vitamin D status</li> </ul> <p>Important causes:</p> <ul style="list-style-type: none"> <li>• idiopathic, familial,</li> <li>• immobility/non weight bearing</li> <li>• male, female hypogonadism</li> <li>• primary hyperparathyroidism</li> <li>• glucocorticoid excess</li> <li>• coeliac disease</li> </ul>	<ul style="list-style-type: none"> <li>• estimate fracture risk</li> <li>• exclude/ detect specific causes of osteoporosis</li> </ul> <p>History:</p> <ul style="list-style-type: none"> <li>• falls, fractures</li> <li>• weight bearing exercise assessment</li> <li>• dietary assessment</li> <li>• glucocorticoid therapy</li> <li>• hypogonadism</li> <li>• weight loss, diarrhoea, iron deficiency</li> </ul> <p>Examination:</p> <ul style="list-style-type: none"> <li>• height; weight</li> <li>• sitting height</li> <li>• pubertal assessment</li> <li>•</li> </ul> <p>Investigations:</p> <ul style="list-style-type: none"> <li>• lateral X-ray thoracic and lumbar spine</li> <li>• DXA (paediatric software)</li> <li>• Total/ionised calcium</li> <li>• Phosphate/magnesium</li> <li>• electrolytes, creatinine, 25-OH Vit D, alkaline phosphatase, PTH, TSH, FBE, ESR</li> <li>• FSH, LH oestradiol, testosterone</li> <li>• serum and urine protein electrophoresis/ca:creat</li> <li>• coeliac disease serology</li> </ul>	<ul style="list-style-type: none"> <li>• calcium; Vit D<sub>2</sub> if Vit D deficient</li> <li>• weight bearing exercise</li> <li>• oestrogen or testosterone if hypogonadal</li> <li>• bisphosphonates</li> </ul>	<p>The following patients should be referred to an endocrinologist or osteoporosis clinic (routine):</p> <ul style="list-style-type: none"> <li>• glucocorticoid-associated</li> <li>• recurrent fractures</li> <li>• osteogenesis imperfecta</li> <li>• immobility osteoporosis/cerebral palsy/spina bifida</li> <li>• hyper/hypoparathyroidism</li> <li>• other (suspected) metabolic bone disease</li> <li>• unresponsive to or intolerant of therapy</li> </ul>