

# BONE AND MINERAL METABOLISM DISEASES UNIT

(SOD Malattie del Metabolismo Minerale e Osseo)

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## Equipe

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## Who we are

The Bone and Mineral Metabolism Diseases Unit is the coordination structure for rare metabolic bone disease of the Tuscany Region. At The Unit take part the Regional Reference Center of the Hereditary Endocrine Tumors.

The Neuroendocrine Unit provides a multidisciplinary evaluation of patients with pituitary and hypothalamic disorders, including prolactinomas, Cushing's disease, acromegaly, nonfunctioning pituitary tumors, hypopituitarism, and other pituitary and hypothalamic disorders.

The mission of its medical care service and nurses assistance is to provide each patient the highest possible level of care. In addition, as part of the Hospital's commitment to the total well-being of each patient, it offers a specialized diagnostically and therapeutically healthcare program and follow-up of the patient with:

- Metabolic Bone Diseases. The most common diseases are: Osteoporosis, Osteomalacia, Paget's Disease
- Genetic Metabolic Bone Diseases: Bone Dysplasia; Tumoral Calcinosis, Bone Angiomatosis, Osteogenesis Imperfecta, Hypophosphatemic Disorders etc.
- Multiple Endocrine Neoplasia type I and II and Sporadic Endocrine Tumors.

## Where we are

**Ambulatory and day hospital for bone and mineral metabolism diseases**

## Day Hospital and Therapeutic Ambulatory care services

- Dynamic Tests for the diagnosis of endocrine tumors and other endocrine diseases
- Intravenous Therapy with Bisphosphonates for Bone Metabolic Diseases
- Intravenous Therapy with Calcium and Vitamin D
- Treatment Plan for the prescription of parathyroid hormone peptides and denosumab for the treatment of severe osteoporosis, Treatment Plan for the prescription of Cinacalcet for treatment of Primary Hyperparathyroidism
- Screening and randomization of patients for International Clinical Trials
- Diagnostic radiology (in collaboration with the Radiology Unit) for the evaluation of bone density: DXA; Finger ultrasound, tibial and/or radial peripheral QCT (pQCT),

and lumbar QCT

## Ambulatory care service

- Ambulatory for the metabolic bone diseases (I and II level)
- Ambulatory for the Hip Fragility Fracture: the Unit coordinates the “TARGET” project of the Tuscany Region in collaboration with the Faculty of Medicine of the University of Florence
- Ambulatory for patients with parathyroid diseases (Hyperparathyroidism and Hypoparathyroidism)
- Ambulatory for patients under anti-hormonal therapy
- Ambulatory for patients with vertebral fractures
- Ambulatory for patients with rare Bone Metabolic Diseases
- Ambulatory for patients with Paget’s disease

## Laboratory activities

- Genetic Tests of the follow genes: MENIN, HRPT2, P27, RET, CaSR, GNAS1, Phosphatonins; COLIA1; VDR; AROMATASE; PTHR; TNFSR11A, TNFSR11B

## Activity of advisors

- Counseling with the departments of Orthopedics
- Counseling clinic in patients with neuroendocrine tumors and their families (CORD)
- Counseling clinic in pediatric patients (Azienda Ospedaliero-Universitaria Meyer)
- Nutritional counseling

## TARGeT Project

Unit coordinates the “Target” project of the Tuscany Region (it represents the first Italian program officially involving regional healthcare authorities, with the aim of reducing the incidence of hip fragility fractures) in collaboration with the Faculty of Medicine of the University of Florence and with the University of Siena.