UNIVERSITÀ
DEGLI STUDI DI MILANO-BICOCCA

COURSE SYLLABUS

Endocrinologia

1819-2-H4601D007-H4601D024M

Aims

The students will learn the organ pathophysiology and
the fallout of the endocrine and metabolic diseases at the systemic level and
to learn how to recognize endocrine and metabolic diseases applying the
clinical reasoning and the diagnostic procedures as well as screening
protocols. Identification of classical and emerging risk factors following
recommendations from the Evidenced Based Medicine (EBM) with acquisition of a robust
self-consciousness of the strong existing relationship between metabolic
disease and diabetes with periodontal disease, in terms or clinical
relationships and reciprocal prevention.

In addition, the field of the endocrine and metabolic
diseases is a paradigmatic example of an area in which the theoretical
principles and the methodological issues of the modern medicine may be applied
to the Evidenced Based Medicine EBM, presenting and discussing randomized
clinical trials, pragmatic trials, and observational studies generating Real
World Evidence (RWD) to teach the students the significance of the levels of
scientific evidence and strength of a clinical recommendation in the Guidelines
in pursuing a diagnostic or screening procedure in agreement with the balance
between pro and cons of the procedures. These efforts to let the students learn
the difference between the efficacy of the medical intervention and efficiency
of the health care system in medicine

Contents

There are 2 major aims related to the delivered content. First, to
provide the knowledge about pathophysiology of endocrine and metabolic diseases
emphasizing their consequences at the systemic level with multi-organ

involvement, and the mechanistic association with parodontopathy and other systemic diseases, especially the most frequent degenerative chronic diseases within the general population (cardiovascular disease, cancer, chronic kidney failure, liver diseases, bone diseases). Second, to provide the knowledge about the diagnosis (clinical, static and dynamic lab tests, imaging) or and screening procedures for these endocrine and metabolic diseases learning signs and symptoms or acquiring validated procedures for primary prevention, secondary prevention (if applicable) and tertiary prevention. These aims are to be pursued keeping in mind that this contents may be eventually applicable during a routine practice within a detal surgery office

Detailed program

- National System
for preparation of the Guidelines in EBM: methodological aspects, hierarchy of the scientific evidence (RCT, meta-analysis,
observational studies, pragmatic studies, retrospective studies), level of evidence, strength of recommendations

- Diabetes Mellitus:
pathogenesis of type 1 and type 2 diabetes, primary prevention (education, empowerment and life style), micro-vascular (retinopathy, nephropathy, neuropathy) and macro-vascular complications (insulin resistance syndrome e estimates of global cardiovascular risk), erectile dysfunction, diabetic foot.

- Hypoglycemia and
iatrogenic hypoglycemia (diagnosis, self-diagnosis, prevention and handling of episodes), gout.

- Relationships
between diabete and parodontopathy: topics will be risk of infection, low-grade inflammation (local and systemic effects)

- Obesity: pathophysiology,
complications with emphasis on NAFLD/NASH e behavioral handling

- Anorexia nervosa

- Hypothalamic and pituitary diseases (with
gender-related differences): Pituitary Physiology and Diagnostic Evaluation, Pituitary Masses and Tumors: non secreting and secreting (prolactin, GH, TSH, ACTH, FSH/LH), pituitary adenomas, hypopituitarism (panhypopituitarism and selective hormone deficiencies), neuropituitary diseases (diabetes insipidus, Syndrome of Inappropriate Antidiuretic Hormone Secretion) ,

- Thyroid diseases
(with gender-related differences): Hyperthyroidism (Graves-Basedow, Plummer, multinodular goiter, iatrogenic diseases), hypothyroidism (primary secondary and iatrogenic diseases) and systemic consequences (metabolic, cardiovascular and immunological issues) of hyper and hypo-thyroidsm, thyroiditis (acute, subacute-De Quervain, auto-immune chronic-Hashimoto, Riedel), simple goiter, thyroid nodule (cytologic implications), thyroid cancer

- Disorders of

calcium and phosphorus metabolism and parathyroid diseses (with gender-related differences):

Hyperparathyroidism,
Hypoparathyroidism, pseudohypoparathyroidism, Paget diseases, Osteoporosis

- Adrenal diseases
Cushing syndrome , Addison's Disease, hyperaldosteronism,
pheochromocytoma/paraganglioma and endocrine hypertension,

Reproduction and
altered sexual differentiation related diseases: Physiology and Pathology of the Female Reproductive Axis, PCOS, geetic syndromes, adrenogential diseases, Hormonal Contraception, Testicular Disorders, Sexual Dysfunction in Men and Women

- Multiple endorine neoplasia: neuroendocrine
tumors, - - Surgical aspects in endocrinology

Prerequisites

Propedeutic skills

Teaching form

The classical lesson
during which the peculiarity of each single disease will be discussed

Textbook and teaching resource

Endocrinologia e malattie del
metabolismo. Giugliano D, Colao A, Riccardi G, Belfiore N, Consoli A, edizione 2017 Edito Idelson Gnocchi

"Malattie del Sistema Endocrino e del Metabolismo" Faglia G, Beck-Peccoz P, IV edizione 2016, Edito da McGraw-Hill

Semester

Once a year; second semester

Assessment method

An oral examination will be employed to test students'
knowledge, and hypothetical clinical case may be used to test the skills related to the procedures of screening and diagnosis

Office hours

Monday-Friday by appointment