

Training the coders of ICD-10 simplified version

**Based on the curriculum
developed by WHO-FIC EIC**

WHO-FIC APN meeting

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- **Core curriculum for morbidity and mortality coders developed by WHO-FIC EIC**
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- **ICD-10 and ICD-10 simplified version**
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Core curriculum for morbidity and mortality coding by WHO-FIC EIC

Morbidity coding	Mortality coding
Biomedical sciences	Basic medical sciences
Medical terminology	Medical terminology
Basic anatomy and physiology	Basic anatomy
Pathophysiology/Disease process	Basic physiology
Pharmacology	Concept of etiology and risk factors
	Basic pathology
Legal/Ethical issues	Legal/Ethical issues
Healthcare Data Content and Structure	
General uses of morbidity data	General uses of underlying cause of death data
Specific uses of morbidity Data	Specific uses of underlying cause of death data
Users of morbidity data	Users of mortality data
Healthcare Delivery Systems	
International Classification of Diseases (ICD)	International Classification of Diseases (ICD)
How to code	How to code
Quality assurance	Quality assurance

Biomedical sciences

- **Medical terminology**

A study of common medical terms related to major disease processes, diagnostic procedures, laboratory tests, abbreviations, drugs, and treatment modalities

- **Basic anatomy and physiology**

– A study of the structure and function of the human body utilizing a system approach

- **Pathophysiology/Disease process**

– A study of the disease processes affecting the human body via an integrated approach to specific disease entities, including the study of risk factors, etiology, manifestations, diagnosis and treatment of disease

The basic contents can be covered in the lecture of medical terminology

- **Pharmacology**

– A study of the basic principles of drugs and their interactions

Simplified version codefs

May be omitted

Country specific issues and systems

- **Legal/Ethical issues** relevant to the country in which coding is being done
 - ✓ Privacy and confidentiality principles
 - Use of person-identifiable information
 - Adherence to relevant laws and regulations
 - Access to person-identifiable information
 - ✓ Release of information
 - ✓ Professional ethics
- **Healthcare Delivery Systems**
 - ✓ Organization of healthcare delivery
 - ✓ Healthcare organizations
 - ✓ Accreditation standards if any
 - ✓ Licensure/regulatory agencies if any
 - ✓ Payment and reimbursement systems if any

Proposed confidentiality and privacy principles by WHO-FIC EIC

- Justify the purpose
- Do not use person-identifiable information unless it is absolutely necessary
- Use the minimum necessary person-identifiable information
- Personal health information should be as accurate and up to date as necessary for the purposes for which it is collected.
- Access to person-identifiable information should be on a strictly need to know basis
- Everyone with access to person-identifiable information should be aware of their responsibilities
- Understand and comply with the law (Data Protection) of the respective country
- Liaise closely with Data Protection Manager

Healthcare data content and structure

- **Content of the health record**
 - **Generic components of the content**
 - **Structure of healthcare data**
- **Documentation requirements**
- **Source of the documents**
 - **Who is responsible for providing the source data**

Proposed curriculum for coders for the simplified version

- **Medical terminology**
 - including basic anatomy and pathology
- **ICD-10 and ICD-10 simplified version**
- **Others**
 - Proposed confidentiality and privacy principles by WHO-FIC
 - Healthcare data contents and structures
 - Content of the health record
 - Documentation requirements
 - Uses and users of the coded data
 - Quality check for the coded data

ICD-10 and the simplified version

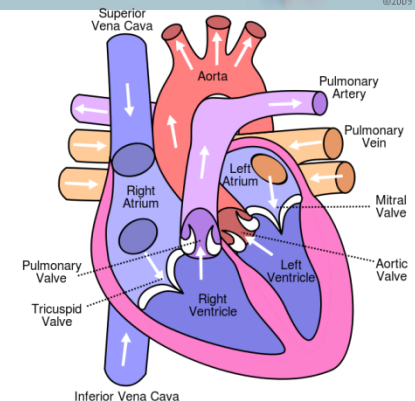
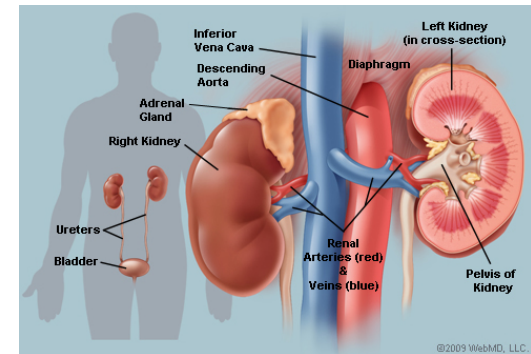
- **ICD-10**
 - Background
 - The components and the basic structure of ICD-10
 - Vol 1: tabular list
 - Vol 2: instruction manual
 - Vol 3: index
 - General coding instructions of ICD-10
- **ICD-10 simplified version**
 - Purpose
 - Restructured index
 - Coding process

Examples of Teaching Material

Learning medical terminology

Prefixes, roots, and suffixes	Meanings	Terminologies	Definitions
a(n)-	absence of	an/emia	a decrease in the amount of RBCs or hemoglobin in the blood
aden(o)-	gland	aden/oma	benign tumor of a gland
angi(o)-	vessel	angio/graphy	
ante-	before	ante/flexion	
arthr(o)-	joint	arthro/plasty	
nephr-	kidney	nephro/itis	
cardi-	heart	cardio/ology	
-itis	inflammation	arthr/itis	
-oma	tumor	aden/oma	
-ectomy	excision	gastr/ectomy	

-
-
-



Medical Terminology

Word analysis: prefix, root, suffix

gastr/o/enter/itis

↓ ↓ ↓
Root Root Suffix
(stomach) (intestine) (inflammation)
↓
Combining vowel

⇒ Inflammation of the stomach and the intestine

hepat/oma

↓ ↓
Root Suffix
(liver) (tumor)

⇒ Tumor of the liver

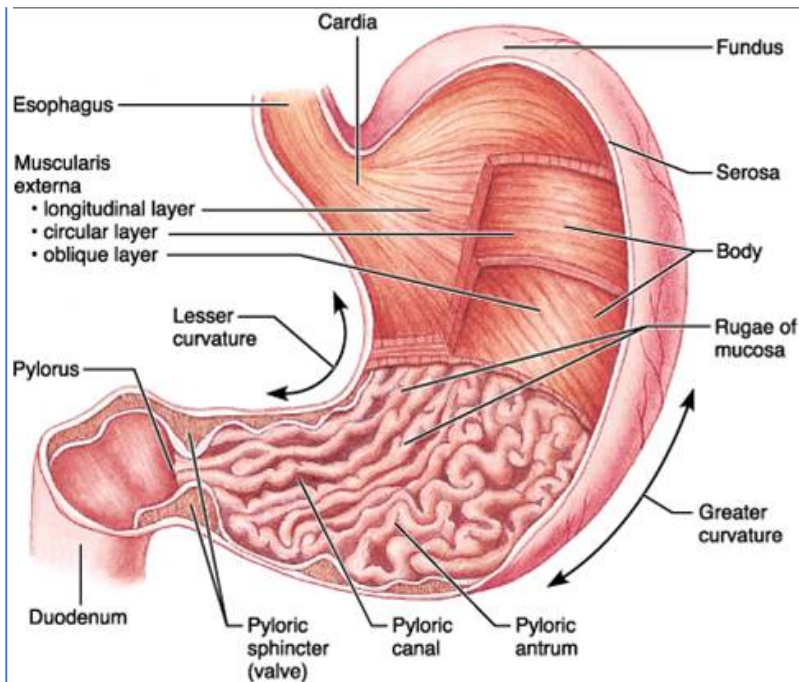
peri/ost/itis

↓ ↓ ↓
Prefix Suffix
(around) (inflammation)
↓
Root
(bone)

⇒ Inflamed condition of the membrane investing a bone

Learning medical terminology

Anatomy and function gastr-



- holds food while it is being mixed with enzymes that continue the process of breaking down food into a usable form.
- Cells in the lining of the stomach secrete a strong acid and powerful enzymes that are responsible for the breakdown process.
- When the contents of the stomach are sufficiently processed, they are released into the small intestine.

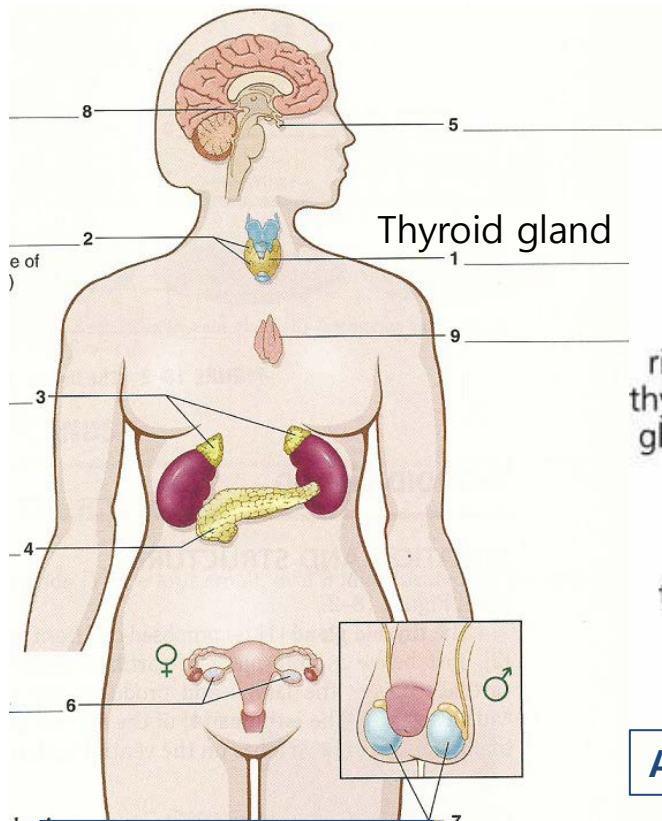
Diagnosis: Nontoxic simple goiter

Goiter

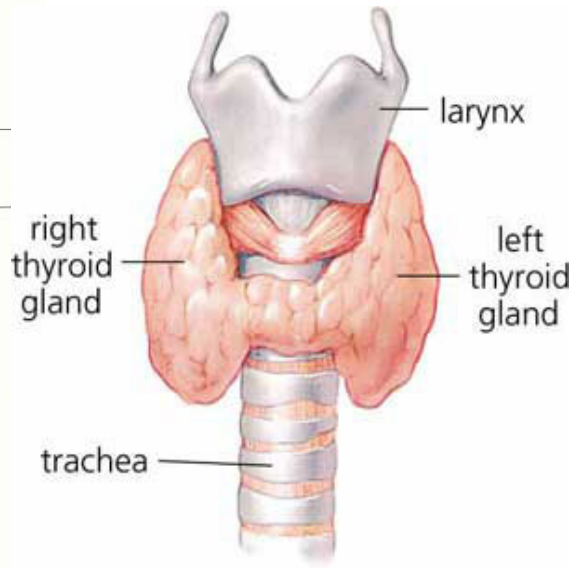
Abnormal enlargement of thyroid gland

nontoxic

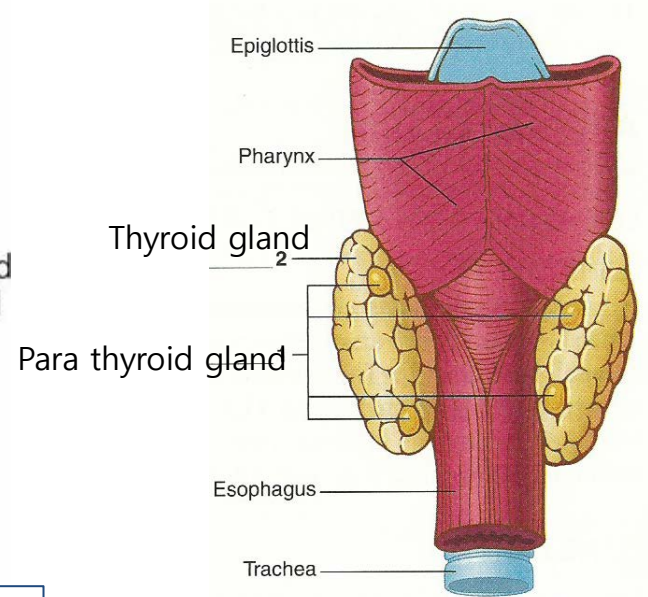
not toxic; not containing or caused by a toxin or poison



Anatomy of the thyroid gland



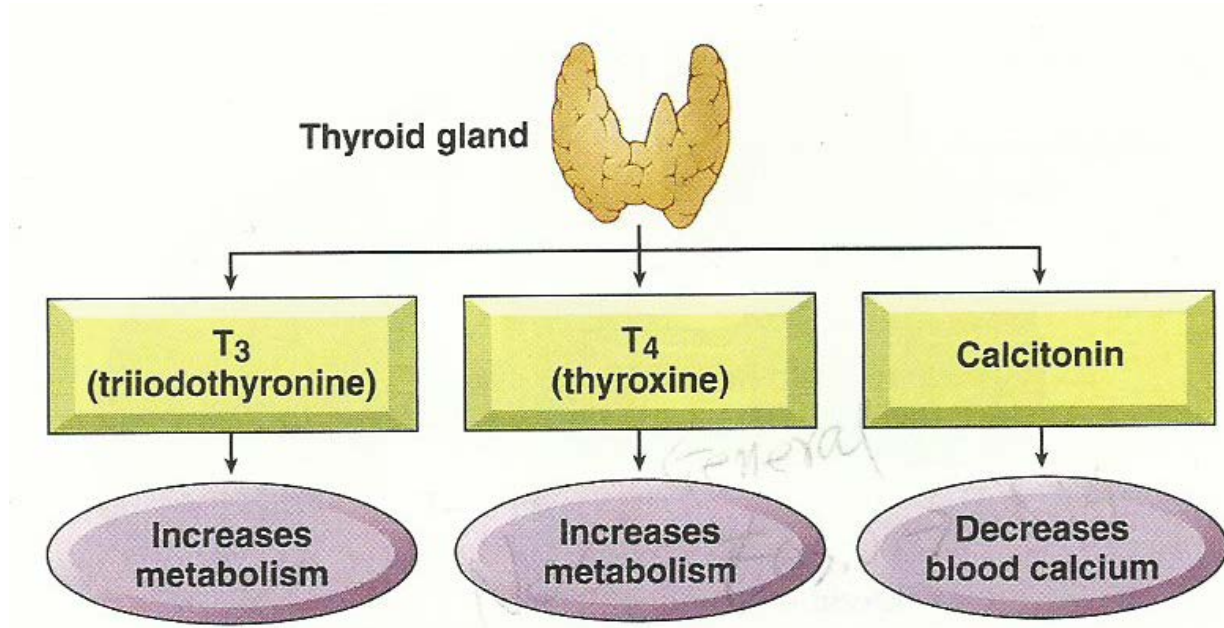
Anterior view of thyroid gland



**Parathyroid glands:
Posterior view**

Endocrine system

Function of the thyroid gland



The thyroid gland: its hormones and actions

Diagnosis: Nontoxic simple goiter

Index of the simplified version

Section 1 Diseases and nature of injury

Diagnosis Term	General	Congenital	Perinatal Neonatal	Pregnancy	Childbirth	Postpartum
Goiter	E04.9	E03.0	P72.0	O99.2	O99.2	O99.2
Goiter nontoxic	E04.9	E03.0	P72.0	O99.2	O99.2	O99.2
Goiter NOS	E04.9	E03.0	P72.0	O99.2	O99.2	O99.2
Goiter with hyperthyroidism	E05.0	na	P72.1	O99.2	O99.2	O99.2
Goiter, unspecified	E04.9	E03.0	P72.0	O99.2	O99.2	O99.2
Goiter; exophthalmos (etiology)	E05.0	na	P72.1	O99.2	O99.2	O99.2
Goiter; hyperthyroidism, multinodular	E05.2	na	P72.1	O99.2	O99.2	O99.2
Goiter; hyperthyroidism, uninodular	E05.1	na	P72.1	O99.2	O99.2	O99.2
Goiter; thyrotoxicosis, multinodular	E05.2	na	P72.1	O99.2	O99.2	O99.2
Goiter; thyrotoxicosis, uninodular	E05.1	na	P72.1	O99.2	O99.2	O99.2
Goitre	E04.9	E03.0	P72.0	O99.2	O99.2	O99.2
Goitre (nontoxic) congenital: NOS	na	E03.0	E03.0	O99.2	O99.2	O99.2
Goitre, nontoxic: diffuse (colloid)	E04.0	E03.0	P72.0	O99.2	O99.2	O99.2
Goitre, nontoxic: simple	E04.0	E03.0	P72.0	O99.2	O99.2	O99.2

Reclassification of Dx in ICD-10

Associated with

- pregnancy, childbirth, and the puerperium: O code
 - **O98.** Maternal infectious and parasitic diseases classifiable elsewhere but complicating preg., childbirth and the puerperium
 - **O99.** Other maternal diseases classifiable elsewhere but complicating preg., childbirth and the puerperium
 - Assign additional code, if desired, to identify specific condition
 - IUP 25 weeks, pulmonary tuberculosis O98.0 A16.0
 - IUP 40 weeks, delivered a living male.
 - Simple goiter O99.2 E04.0
- neonatal period: P code

Diagnosis: Nontoxic simple goiter, IUP 25 weeks

Diagnosis: Nontoxic simple goiter, neonatal

Diagnosis Term	General	Congenital	Perinatal Neonatal	Pregnancy	Childbirth	Postpartum
Goiter	E04.9	E03.0	P72.0	O99.2	O99.2	O99.2
Goiter nontoxic	E04.9	E03.0	P72.0	O99.2	O99.2	O99.2
Goiter NOS	E04.9	E03.0	P72.0	O99.2	O99.2	O99.2
Goiter with hyperthyroidism	E05.0	na	P72.1	O99.2	O99.2	O99.2
Goiter, unspecified	E04.9	E03.0	P72.0	O99.2	O99.2	O99.2
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Goiter; hyperthyroidism, uninodular	E05.1	na	P72.1	O99.2	O99.2	O99.2
Goiter; thyrotoxicosis, multinodular	E05.2	na	P72.1	O99.2	O99.2	O99.2
Goiter; thyrotoxicosis, uninodular	E05.1	na	P72.1	O99.2	O99.2	O99.2
Goitre	na	E03.0	P72.0	O99.2	O99.2	O99.2
Goitre (nontoxic) congenital: NOS	E03.0	E03.0	E03.0	O99.2	O99.2	O99.2
Goitre, nontoxic: diffuse (colloid)	E04.0	E03.0	P72.0	O99.2	O99.2	O99.2
Goitre, nontoxic: simple	E04.0	E03.0	P72.0	O99.2	O99.2	O99.2

no additional code(E04.0) by simplified version

Required training hours for the coders of simplified version

- **Would be different by**
 - the educational background of the trainees or their level of the related knowledge
 - language: Is interpretation necessary?
 - trainees' desire to learn
- **Basic medical terminology(including anatomy): 8 hrs.**
- **Introduction and coding instructions**
 - ICD-10: 6 hrs.
 - ICD-10 simplified version: 4 hrs.
- **Coding practice using ICD-10 simplified version: 5 hrs.**
- **Others: 2 hrs.**

Total: 25 hrs.

Thank you!

