

READER



MEDICAL ENGLISH READING SKILLS

PROF. VANESSA LEONARDI

INTRODUCTION TO MEDICAL LANGUAGE



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Prof. Vanessa Leonardi



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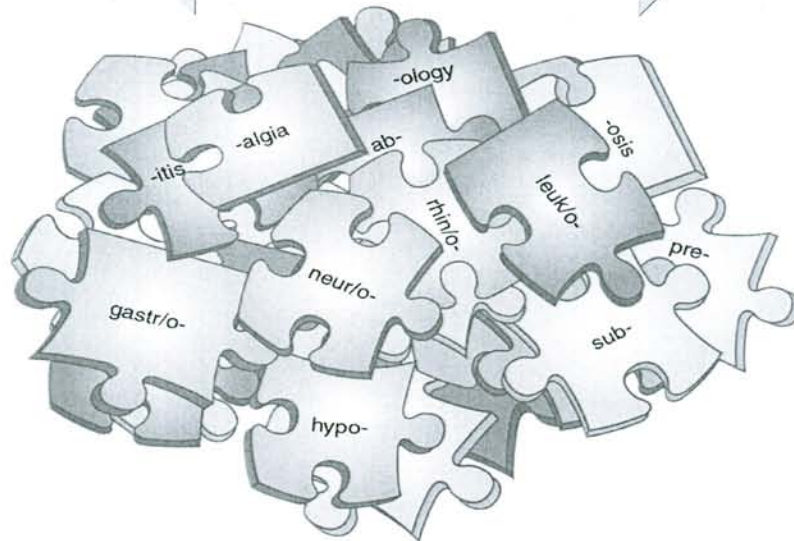
WHAT'S IN A WORD?

ORIGIN OF MEDICAL TERMS

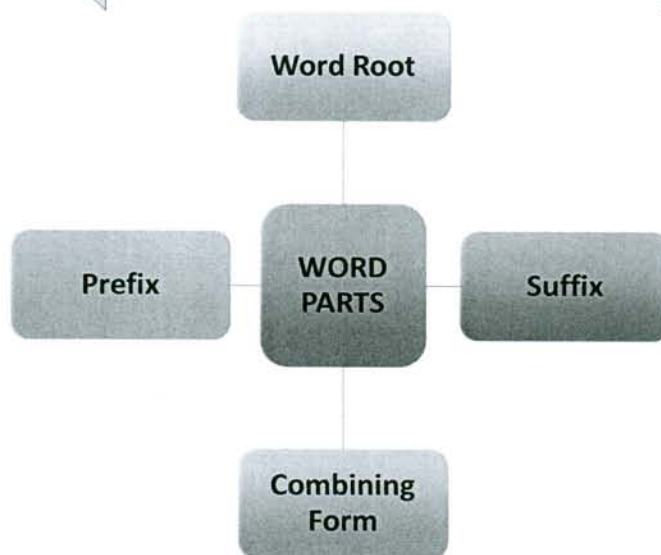
- Hippocrates was a Greek physician and is known as the “father of medicine.”
- 75% of medical terms are based on either Greek or Latin words.



MEDICAL TERMINOLOGY



MEDICAL TERMS AND WORD PARTS



WORD PART GUIDELINES

1

- A word root cannot stand alone
- A suffix must be added

2

- Combining forms may be needed to connect words or word roots to suffixes to facilitate pronunciation

3

- Prefixes always at the beginning of the word

4

- Exceptions apply!!!!

Medical Terms Are Built from Word Parts

- | | |
|------------------|--|
| • Word root | • cardi ogram (record of the heart) |
| • Prefix | • peri cardium (around the heart) |
| • Suffix | • cardi itis (inflammation of the heart) |
| • Combining form | • cardi omyo pathy (heart muscle disease) |

WORD ROOTS or ROOT WORDS

- A root is the foundation or basic meaning of a word.
- May appear with a prefix or suffix, or between a prefix or suffix.
- cardi - root for heart
- hepat- root for liver
- natal - root for birth
- neur/o - root for nerve
- tonsil - root for tonsils
- nephr - root for kidney
- cyt- root for cell
- Etc.....

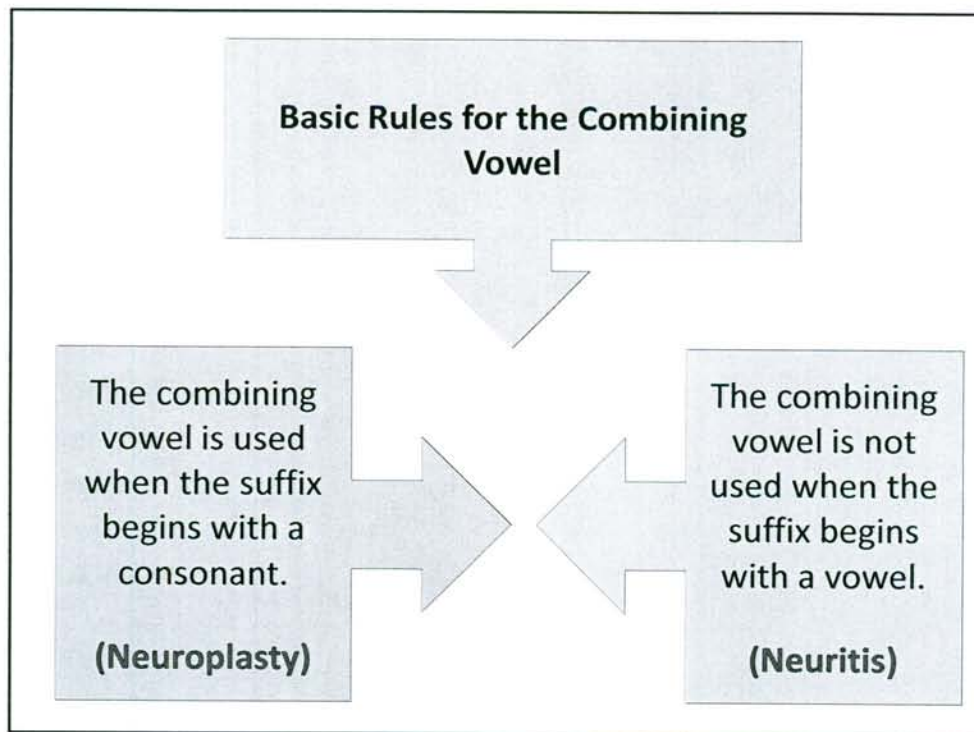


COMBINING FORMS

The word root +
a connecting
vowel

to attach
another root
word or suffix

to facilitate
pronunciation



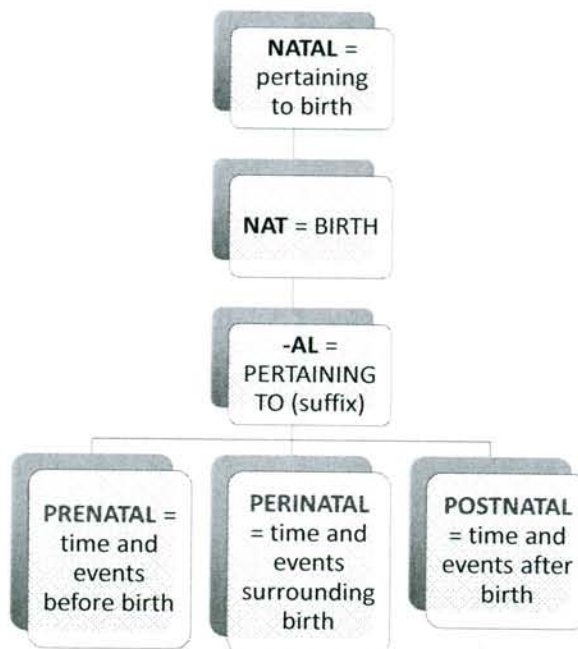
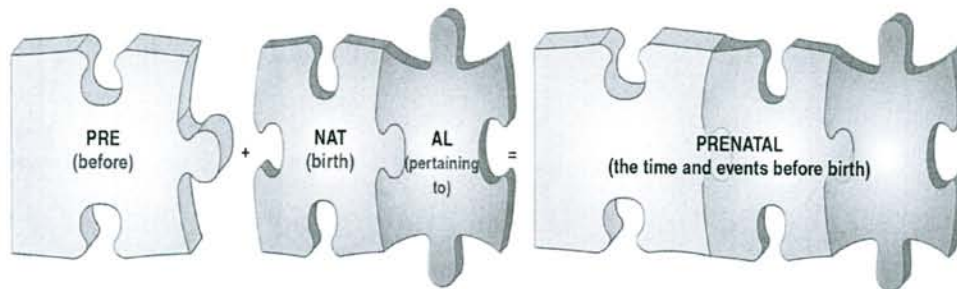
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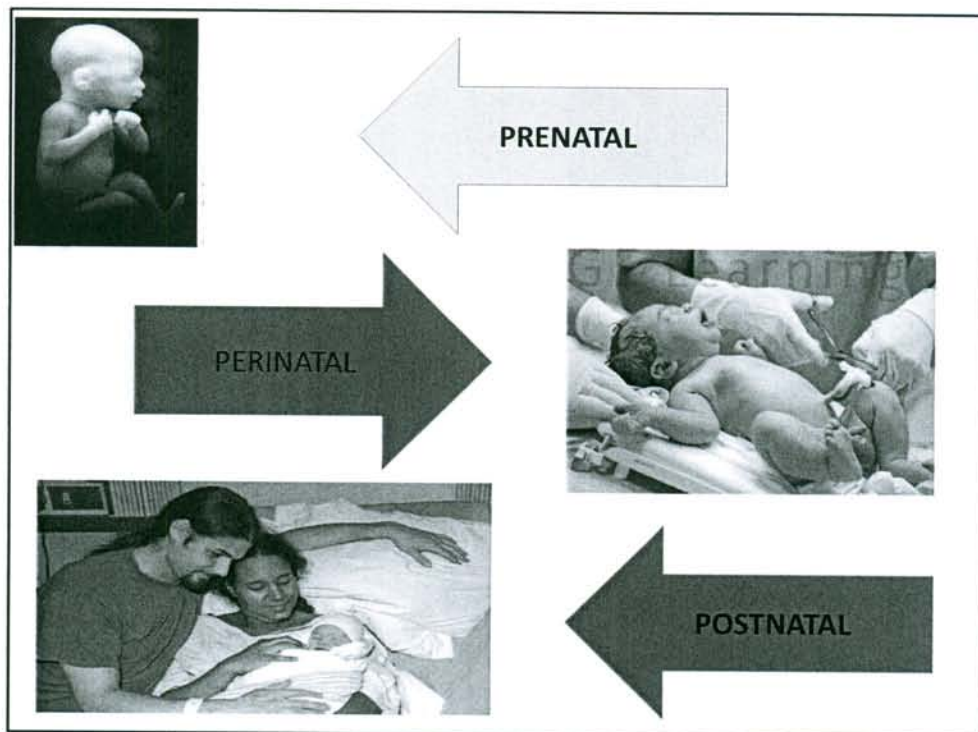
Word Roots and Combining Forms Indicating Color

cyan/o means blue	Cyanosis (sigh-ah-NOH-sis) is blue discoloration of the skin caused by a lack of adequate oxygen in the blood (cyan means blue, and -osis means abnormal condition or disease).
erythro means red	An erythrocyte (eh-RITH-roh-sight) is a mature red blood cell (erythro means red, and -cyte means cell).
leuk/o means white	A leukocyte (LOO-koh-sight) is a white blood cell (leuk/o means white, and -cyte means cell).
melano means black	Melanos (mel-ah-NOH-sis) is any condition of unusual deposits of black pigment in body tissues or organs (melan means black, and -osis means abnormal condition or disease).
polio means gray	Poliomyelitis (poh-lee-oh-my-eh-LYE-tis) is a viral infection of the gray matter of the spinal cord (polio means gray, myel means spinal cord, and -itis means inflammation).

PREFIX

- The prefix is a part of the word that precedes the word root and changes its meaning.
- Often indicates location, time, or number.





Prefixes Describing Direction, Quantity, Size, and Amount

ab- away from, negative, absent

dextr/o right side

ex- out of, outside, away from

macro- large, abnormal size, or long

mega-, megal/o large, great

pre- before

ad- toward, to, in the direction of

sinistr/o left side

in- in, into, not, without

micr/o, micro- small

olig/o scanty, few

post- after, behind

Contrasting Prefixes

ab- means away from.

Abnormal means not normal or away from normal.

dys- means bad, difficult, or painful.

Dysfunctional means an organ or body part that is not working properly.

hyper- means excessive or increased.

Hypertension is higher-than-normal blood pressure.

inter- means between or among.

Interstitial means between, but not within, the parts of a tissue.

sub- means under, less, or below.

Subcostal means below a rib or ribs.

ad- means toward or in the direction of.

Addiction means drawn toward or a strong dependence on a drug or substance.

eu- means good, normal, well, or easy.

Eupnea means easy or normal breathing.

hypo- means deficient or decreased.

Hypotension is lower-than-normal blood pressure.

intra- means within or inside.

Intramuscular means within the muscle.

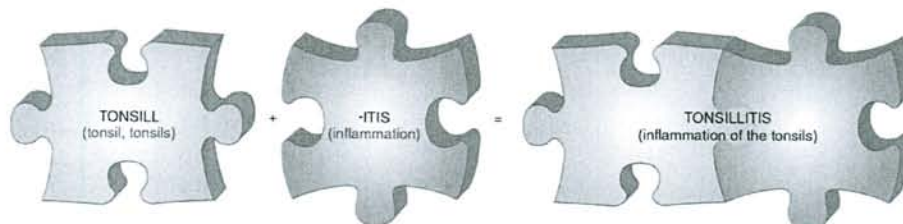
super-, supra- mean above or excessive.

Supracostal means above or outside the ribs.

SUFFIX

A suffix is the word ending that follows the word root and changes its meaning.

- Often indicates the procedure, condition, disorder, or disease.



Examples ...

CARDIOLOGY

- Cardi - root means heart.
- -ology - suffix means the study of.
- Cardiology - the study of the heart.



NEPHRITIS

- Nephri - root words means kidney
- -itis suffix means inflammation
- Nephritis means inflammation of the kidney



SUFFIXES

Noun Endings

"Pertaining TO"

"Abnormal Condition"

Pathology

Procedures

"Double R"

Suffixes as Noun Endings

CRANIUM

the portion of the skull that encloses the brain

CRANI

= SKULL

- UM

= Noun Ending

Suffixes as Noun Endings

Suffixes as Noun Endings

-a

-um

-y

-e

-us



Suffixes meaning Pertaining To

CARDIAC = Adjective = pertaining to the heart

CARDI = Heart

-ac = pertaining to



Suffixes meaning Pertaining To

Suffixes Meaning "Pertaining To"

-ac	-eal	-ior
-al	-ical	-ory
-an	-ial	-ous
-ar	-ic	-tic
-ary	-ine	

Suffixes meaning Abnormal Condition

GASTROSIS = any disease of
the stomach

GASTR = stomach

- OSIS = abnormal condition
or disease

Suffixes meaning Abnormal Condition

Suffixes Meaning "Abnormal Condition"

-ago

-iasis

-osis

-esis

-ion

-ia

-ism

Suffixes Related to Pathology

Pathology = the
study of all aspects
of diseases

PATH = disease

- OLOGY = study of

Suffixes related to pathology describe
specific disease conditions

Suffixes Related to Pathology

SUFFIX	MEANING	EXAMPLE
- ALGIA	pain and suffering	GASTRALGIA
- DYNIA	pain	GASTRODYNIA
- ITIS	inflammation	GASTRITIS
- MEGALY	enlargement	HEPATOMEGALY
- MALACIA	abnormal softening	ARTERIOMALACIA
- NECROSIS	tissue death	ARTERIONECROSIS
- SCLEROSIS	abnormal hardening	ARTERIOSCLEROSIS
- STENOSIS	abnormal narrowing	ARTERIOSTENOSIS

Suffixes Related to Procedures

SUFFIX	MEANING	EXAMPLE
- CENTESIS	surgical puncture to remove (excess) fluid	ABDOMINOCENTESIS
- GRAPHY	producing a picture or record	ANGIOGRAPHY
- GRAM	picture or record	ANGIOGRAM
- PLASTY	surgical repair	MYOPLASTY
- SCOPY	visual examination	ARTHROSCOPY

The Double RR Suffixes

SUFFIX	MEANING	EXAMPLE
- RRHAGE / -RRHAGIA	bleeding	HEMORRHAGE
- RRHAPHY	surgical suturing to close a wound	MYORRHAPHY
- RRHEA	flow or discharge (most body fluids)	DIARRHEA
- RRHEXIS	rupture	MYORRHEXIS



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Determining Meanings on the Basis of WORD PARTS

1

- **START** at the end of the word toward the beginning

2

- **Separate** the word parts and identify their meaning

3

- **Some** word parts have more than one meaning –
DETERMINE the context of use

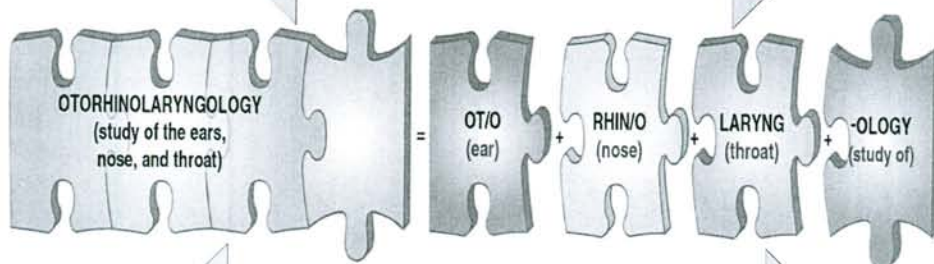
4

- **NOT** all medical terms are made up of word parts



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An Example to Take Apart



ENT or OTOLARYNGOLOGY

WATCH OUT!!!!

PRONUNCIATION

SPELLING

Guidelines to Unusual Plural Forms

Guideline	Singular	Plural
If the singular term ends in the suffix -a, the plural is usually formed by changing the ending to -ae.	bursa vertebra	bursae vertebrae
If the singular term ends in the suffix -ex or -ix, the plural is usually formed by changing these endings to -ices.	appendix index	appendices indices
If the singular term ends in the suffix -is, the plural is usually formed by changing the ending to -es.	diagnosis metastasis	diagnoses metastases
If the singular term ends in the suffix -itis, the plural is usually formed by changing the -is ending to -ides.	arthritis meningitis	arthritides meningitides
If the singular term ends in the suffix -nx, the plural is usually formed by the -x ending to -ges.	phalanx meninx	phalanges meninges
If the singular term ends in the suffix -on, the plural is usually formed by changing the ending to -a.	criterion ganglion	criteria ganglia
If the singular term ends in the suffix -um, the plural usually is formed by changing the ending to -a.	diverticulum ovum	diverticula ova
If the singular term ends in the suffix -us, the plural is usually formed by changing the ending to -i.	alveolus malleolus	alveoli malleoli



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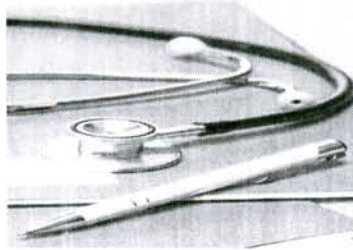
Thanks for Your Attention

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Reading Medical English


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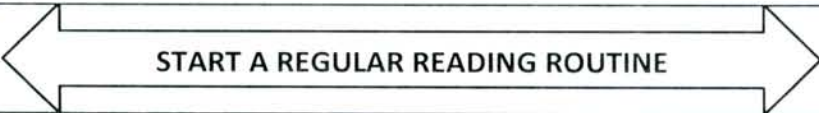
GOOD REASONS NOT TO READ

- 1 • It's hard
- 2 • It's boring
- 3 • I don't know how
- 4 • I don't have the time
- 5 • I'm too busy
- 6 • I'd rather do something else
- 7 • Professionally... I don't need it !!!!



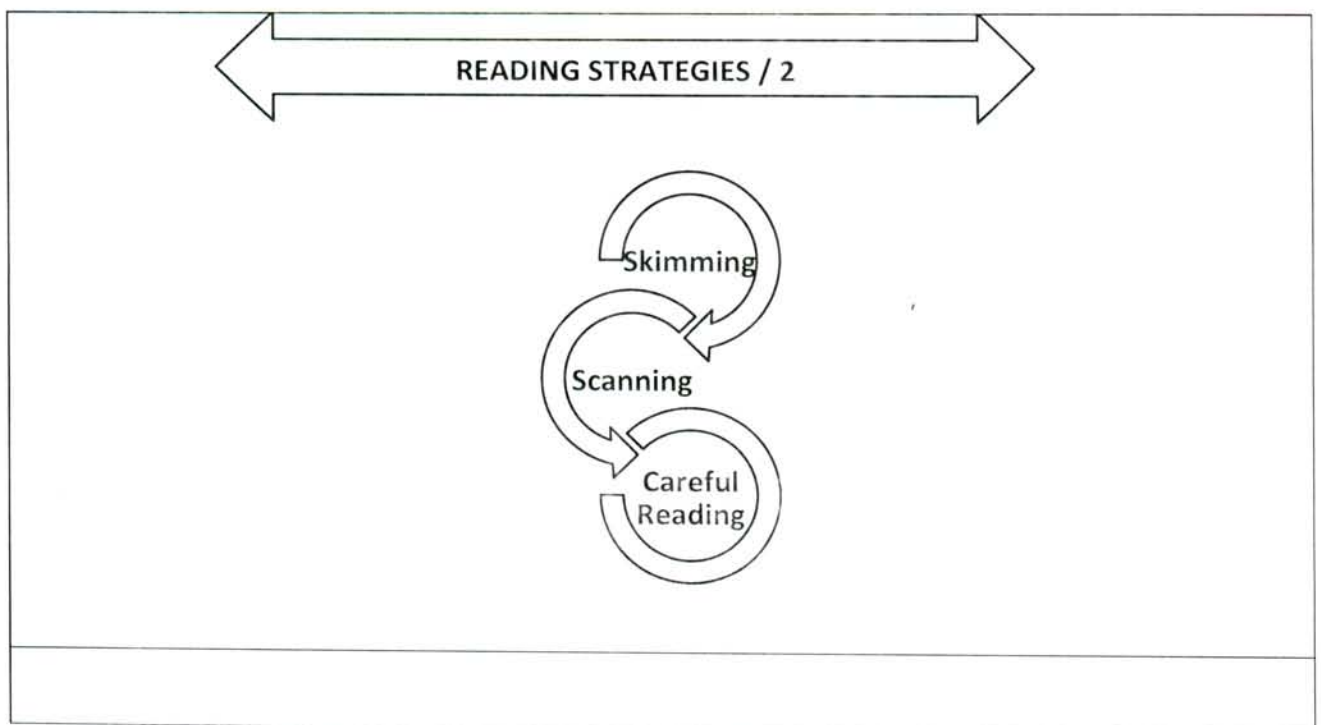
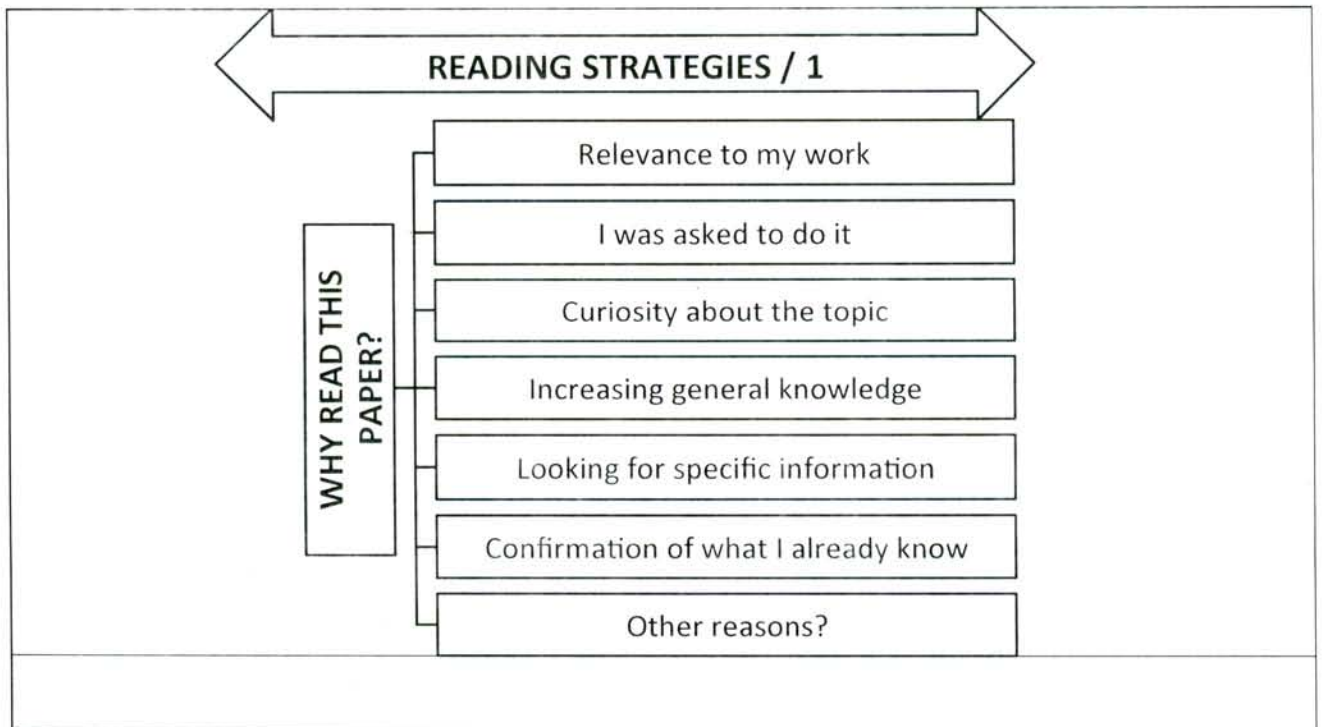
GOOD REASONS TO READ

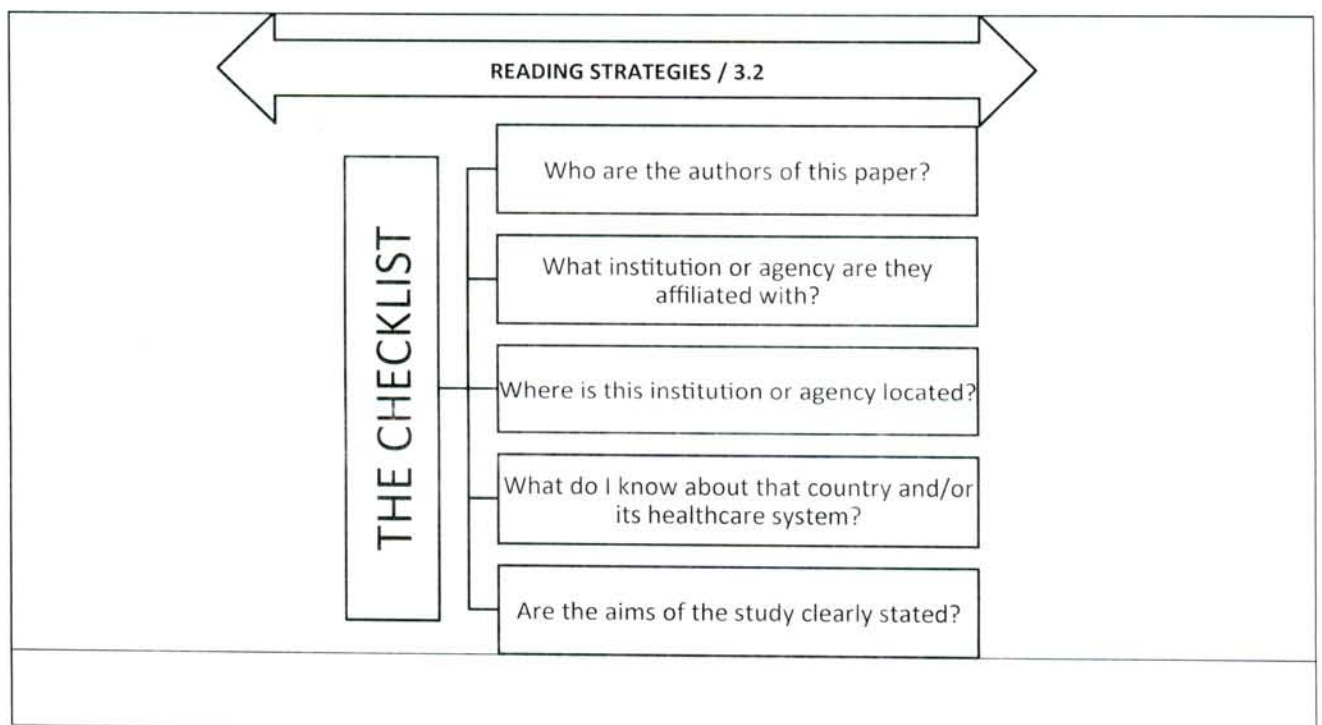
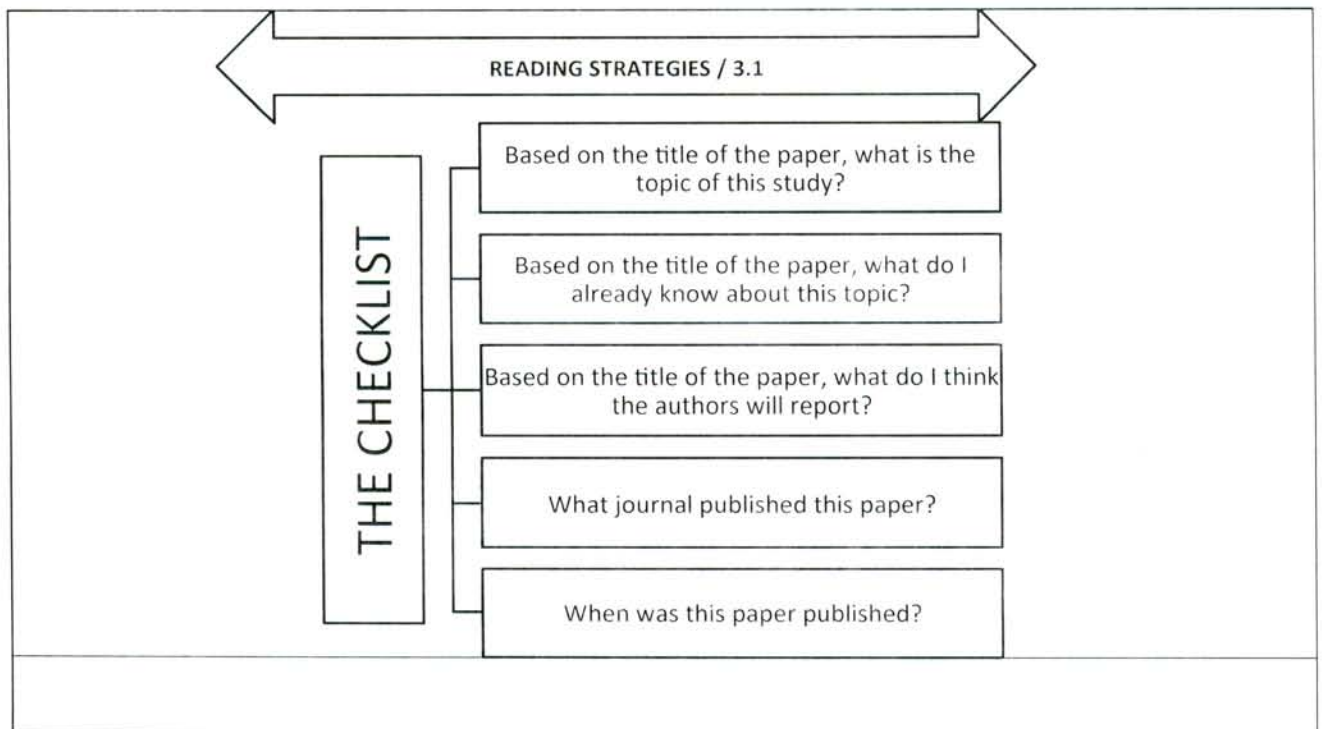
1	• You care about your work
2	• You care about yourself....personally and professionally
3	• Professionally..... You could be and do better
4	• You want to make a difference
5	• You want to save the world!!!



START A REGULAR READING ROUTINE

1	• Your knowledge of English may be an obstacle
2	• You care about yourself.... personally and professionally
3	• All learning is the same
4	• Be patient
5	• You don't have to be perfect!!!
6	• You don't need a lot of grammar
7	• You don't need a lot of vocabulary
8	• You need a METHOD and a lot of PRACTICE





THE CHECKLIST

1. Based on the title of the paper, what is the topic of this study?
2. Based on the title of the paper, what do I already know about this topic?
3. Based on the title of the paper, what do I think the authors will report?
4. What journal published this paper?
5. When was this paper published?
6. Who are the authors of this paper?
7. What institution or agency are they affiliated with?
8. Where is this institution or agency located? (Consult a map if necessary)
9. What do I know about that country and/or its healthcare system?
10. Are the aims of the study clearly stated?

Do the authors' conclusions correspond to the declared study aims?

If they do not, don't waste your time reading this paper....

Do the authors declare any conflict of interest or potential bias?

If they do, that is a point in their favour in terms of scientific integrity....

If they do not, be cautious of possible bias ...

Abstracts are subject to word limits
Always consult the Results section for
complete data information

REMEMBER!!!!



Difficulty in reading an article because it is poorly written
....NOT necessarily because your English is bad or limited!

VOCABULARY STRATEGIES

1 { • Words You Know

2 { • New Words

3 { • Vaguely Familiar Words

New or Vaguely Familiar Words?

1) • Distinguish between Essential and Non-Essential Words

2) • Attention to Unknown Words:

• Are they essential?

• Frequency of use /Occurrences

3) • Can you understand the general meaning of the title and the paragraph?

4) • Infer meaning

5) • If you can't Then, use a dictionary

6) • Linguistic analysis: Position and category of terms

7) • Learn Text Organizers

RES REP HEALTH EFF INST.
2009 Mar;(139):5-71: discussion 73-89.

Effects of long-term exposure to traffic-related air pollution on respiratory and cardiovascular mortality in the Netherlands: the NLCS-AIR study

Brunekreef B, Beelen R, Hoek G, Schouten L, Bausch-Goldbohm S, Fischer P, Armstrong B, Hughes E, Jerrett M, van den Brandt P. Division of Environmental Epidemiology, Institute for Risk Assessment Sciences, Utrecht University, Utrecht, The Netherlands.

Evidence is increasing that long-term exposure to ambient air pollution is associated with deaths from cardiopulmonary diseases. In a 2002 pilot study, we reported clear indications that traffic-related air pollution, especially at the local scale, was related to cardiopulmonary mortality in a selected subcohort of 5000 older adults participating in the Netherlands Cohort Study (NLCS) on diet and cancer. In the current study, referred to as NLCS-AIR, our objective was to obtain more precise estimates of the effects of traffic-related air pollution by analyzing associations with cause-specific mortality, lung cancer incidence, in the full cohort of approximately 120,000 subjects.

- A word that ends in "s" is probably either a verb (third person singular, present tense) or a plural noun.
- A word that ends in -ed or -ing is probably a verb in the present or past participle, a noun, or an adjective.
- If there is an article, then there is surely a noun. Keep reading until you find it.
- If there is "either" then there is surely "or". Keep reading until you find it.
- If there is "both", then there is surely "and". Keep reading until you find it.
- If there is "between" then there is surely "and". Keep reading until you find it.
- If there is "more" then there is almost surely "than". Keep reading until you find it.
- A word that ends in -er is almost surely a comparative adjective. Look for "than".
- A word that ends in -est and is preceded by "the" is almost surely a superlative adjective.
- *Will, would, can, could, should, may, might, can, and must* are always followed by an infinitive. Keep reading until you find it.

Text organizers

ADDING INFORMATION

- | | |
|---------------|---------|
| • furthermore | inoltre |
| • moreover | inoltre |
| • what's more | inoltre |

LOGICAL RELATION

- | | |
|-------------|--------|
| • hence | perciò |
| • as | poiché |
| • since | poiché |
| • therefore | perciò |
| • thus | perciò |

CONTRAST

- | | |
|-----------------------|------------|
| • although/though | sebbene |
| • despite/in spite of | nonostante |
| • even though | anche se |
| • however | tuttavia |
| • nevertheless/ | tuttavia |
| nonetheless | |
| • regardless of | nonostante |
| • still | tuttavia |
| • whereas | mentre |
| • while | mentre |
| • whilst | mentre |

GIVING EXAMPLES

- | | |
|----------------|------------------|
| • for instance | ad esempio |
| • like | come, ad esempio |
| • such as | come, ad esempio |

Tips On How To Learn Vocabulary

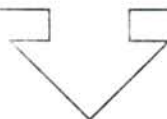
- 1 • Study only useful words
- 2 • Study only the words that are difficult to remember
- 3 • Do not study long lists of words
- 4 • Study only 5 words at a time
- 5 • NO right/wrong strategy – ONLY effective or not effective
- 6 • Any strategy to make reading easier and faster
- 7 • Use the glossary provided in the extra material reader

Syntax

- 1 • English syntax is very rigid
- 2 • Break the sentence down into individual parts
- 3 • Basic English syntax: SVO/C
• (Subject-Verb-Object/Complement)
- 4 • Long and complex sentences; Find the VERB

Premature	COPD-related	Death
Adjective	Adjective	Noun
Morte prematura associata al COPD (Chronic Obstructive Pulmonary Disease)		

Break a long and complex sentence into INFORMATION BLOCKS



Grammar to go!

VERB TENSES

Present Simple

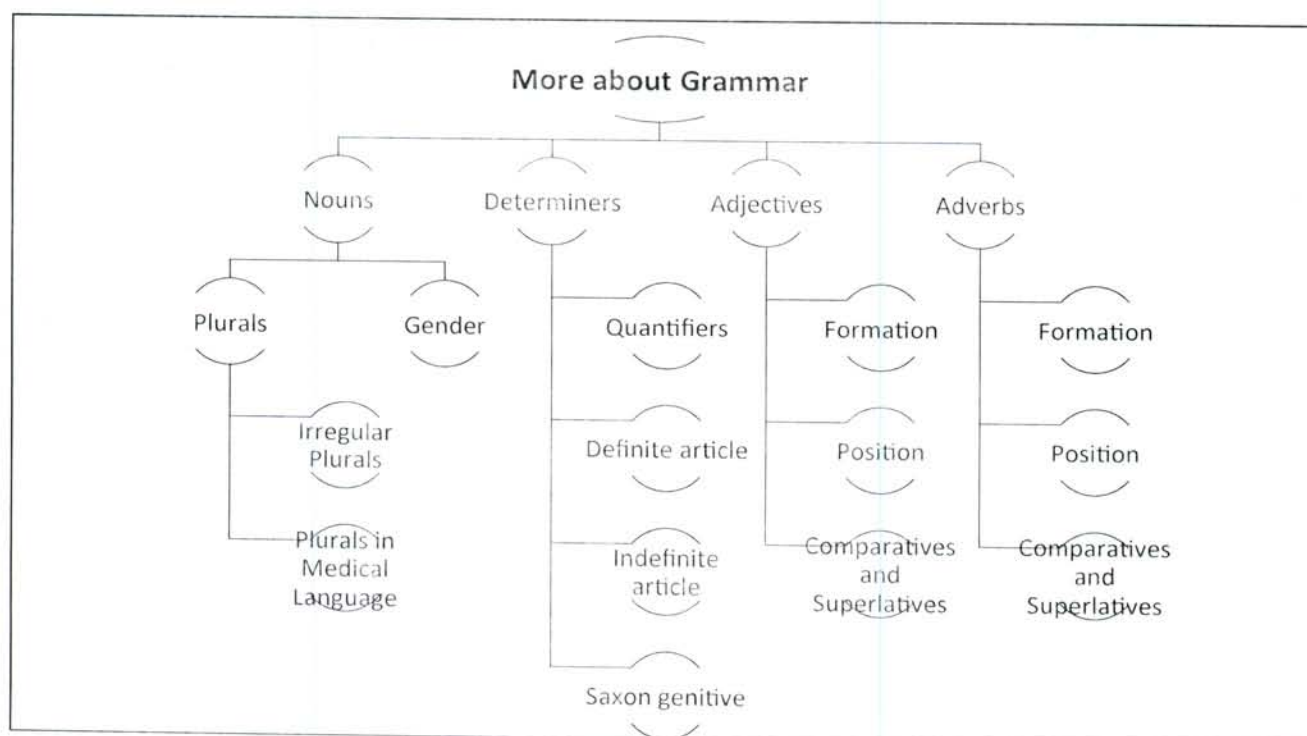
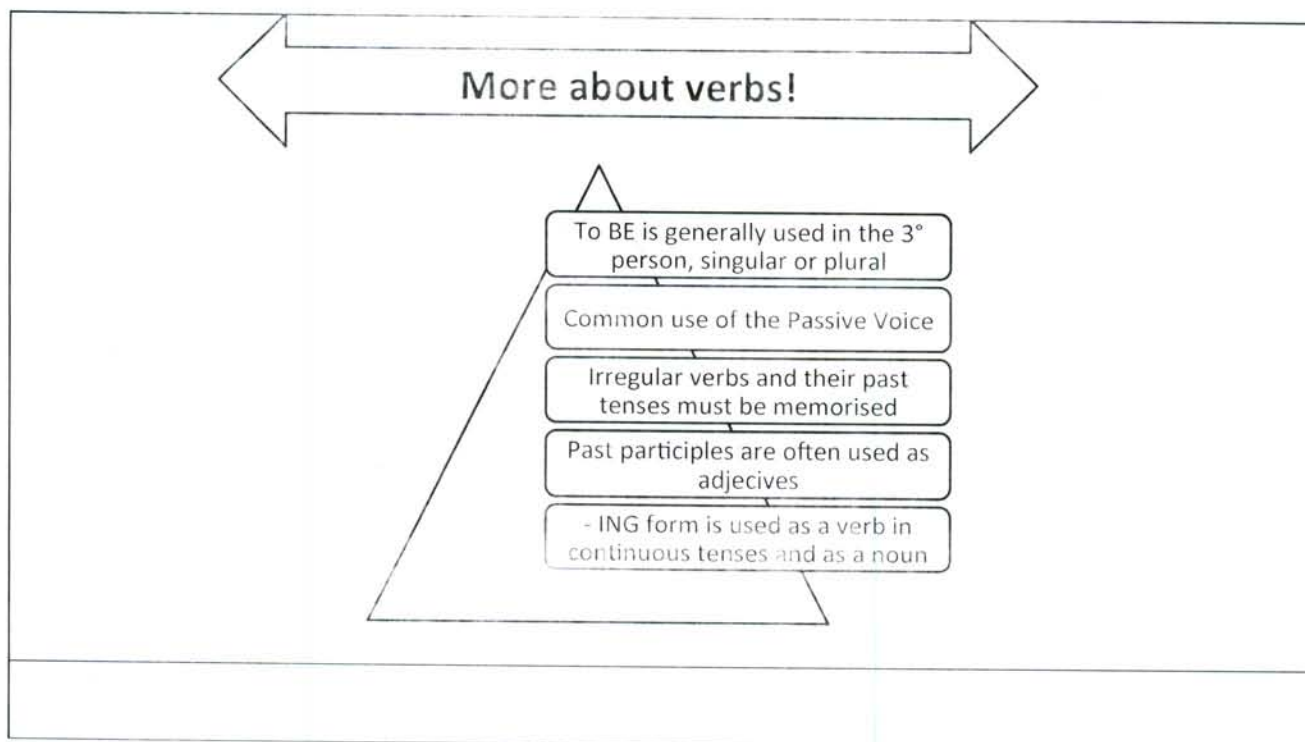
Past Simple

Present Perfect
Simple

Future

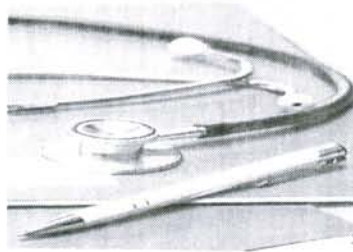
Modals

RELAX.... YOU ONLY
HAVE TO RECOGNISE
TENSES



Thanks for Your Attention

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GIVING EXAMPLES

- | | |
|----------------|------------------|
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| • like | come, ad esempio |
| • such as | come, ad esempio |

Comments, Opinions, and Reviews

Epidemiological Studies of the Effect of Stroke on Incident Dementia A Systematic Review

George M. Savva, PhD; Blossom C.M. Stephan, PhD; the Alzheimer's Society Vascular Dementia Systematic Review Group

Background and Purpose—Stroke is implicated in the incidence of dementia, and the risk of poststroke dementia is well characterized, but the excess risk of dementia in those with stroke compared with those without stroke is not well known.

Methods—We conducted a systematic review of the excess risk of incident dementia conferred by stroke. Studies of the risk of incident dementia in the population with stroke compared with the population without stroke were identified and compared.

Results—Sixteen studies were identified with all but one conducted in a community setting. A history of stroke doubles the risk of incident dementia in the older population. This increase is not explained by demographic or cardiovascular risk factors or by prestroke cognitive decline. The excess risk of incident dementia diminishes with time after stroke and may be higher in those without an *APOE* $\epsilon 4$ allele. There is no excess risk of incident dementia in those aged >85 years with a history of stroke compared to those aged >85 years without stroke.

Conclusions—The effect of stroke on dementia incidence in the population is not explained by common risk factors. At this time of population aging and increased stroke survival, more research is needed to determine to what extent efforts to reduce the incidence of stroke will affect the incidence of dementia. (*Stroke*. 2010;41:e41-e46.)

Key Words: dementia ■ epidemiology ■ review ■ stroke ■ systematic

BEFORE YOU READ

Vocabulary practice

Exercise 1. Match the English word with its translation

- | | | |
|------------------|----------|-----------------------------|
| 1. affect | <u>d</u> | a) rispetto a, paragonato a |
| 2. aging | _____ | b) calo, diminuzione |
| 3. background | _____ | c) invecchiamento |
| 4. compared with | _____ | d) incidere su, influire |
| 5. decline | _____ | e) sfondo, premessa |

Exercise 2. As above.

- | | | |
|-------------|-------|----------------|
| 1. double | _____ | a) necessario |
| 2. effort | _____ | b) spiegare |
| 3. explain | _____ | c) raddoppiare |
| 4. increase | _____ | d) sforzo |
| 5. needed | _____ | e) aumento |

Exercise 3. As above.

- | | | |
|-------------|-------|------------------|
| 1. old | _____ | a) ictus |
| 2. purpose | _____ | b) scopo |
| 3. stroke | _____ | c) senza |
| 4. survival | _____ | d) vecchio |
| 5. without | _____ | e) sopravvivenza |

Exercise 4. Complete the chart.

Noun	Verb
1 comparison	compare
2 _____	explain
3 increase	_____
4 _____	identify
5 _____	reduce
6 survival	_____

Exercise 5. What is the opposite of:

- | | |
|--------------|------------------|
| 1. go? | come/stop |
| 2. increase? | _____ |
| 3. more? | _____ |
| 4. old? | _____ |

GRAMMAR TO GO!

1. A final "**s**" is EITHER a verb, third-person singular, present simple (A history of stroke **doubles** the risk ...) OR a plural noun (**efforts**).
2. Regular verbs end in **-ed** in the Past Simple and past participle. Remember that past participles are often used as adjectives.
implicated – implicato
characterized – caratterizzato
conducted – condotto
conferred – conferito
identified – identificato
3. Irregular verbs must be memorized. The good news is that they are very common and thus easy to learn!
4. *To BE* – third-person singular/plural:
is/are – present simple
was/were – past simple
5. Passive voice (very common in English!) – *To BE* + *past participle*
Sixteen studies were identified.
Sono stati identificati 16 studi.
6. *May* + *infinitive* expresses possibility.
The risk of dementia may be higher.
Il rischio di demenza potrebbe essere più alto.
7. *Will* + *infinitive* expresses future.
The incidence of stroke will affect the incidence of ...
L'incidenza di ictus influirà sull'incidenza di ...
8. Basic English sentence structure:
subject + verb + complement
We conducted a systematic review.
Abbiamo condotto una revisione sistematica.
9. Basic English sentence structure:
adjective + adjective + adjective (etc.) + noun
... cardiovascular risk factors...
... prestroke cognitive decline...

When a sentence is long and complex, find the verb. Use this as your reference point to identify the subject and the complement.

The last word in a series is the noun, all the words before it are adjectives (even if they are nouns)!

READ

Exercise 1. Scan the text to find this information.

1. What journal published this paper?
Stroke.
2. When was it published?
3. What kind of text is this? (Abstract? Editorial? Full text paper? Other?)
4. Who are the authors of this paper?
5. What institution are they affiliated with?
6. Why was the study conducted?
(Aim/Objective/Purpose)
7. What kind of study was conducted?
(Design/Methods) (Consult pp. 171-173 of this textbook for explanations of study designs.)
8. Where were the original studies conducted? (Methods/Results)
9. How many studies were reviewed?
(Methods/Results)

Knowing how a text is organized lets you find the specific information you're looking for quickly.

Comments, Opinions, and Reviews

Epidemiological Studies of the Effect of Stroke on Incident Dementia A Systematic Review

George M. Savva, PhD; Blossom C.M. Stephan, PhD; the Alzheimer's Society Vascular Dementia Systematic Review Group

Background and Purpose—Stroke is implicated in the incidence of dementia, and the risk of poststroke dementia is well characterized, but the excess risk of dementia in those with stroke compared with those without stroke is not well known.

Methods—We conducted a systematic review of the excess risk of incident dementia conferred by stroke. Studies of the risk of incident dementia in the population with stroke compared with the population without stroke were identified and compared.

Results—Sixteen studies were identified with all but one conducted in a community setting. A history of stroke doubles the risk of incident dementia in the older population. This increase is not explained by demographic or cardiovascular risk factors or by prestroke cognitive decline. The excess risk of incident dementia diminishes with time after stroke and may be higher in those without an *APOE* $\epsilon 4$ allele. There is no excess risk of incident dementia in those aged >85 years with a history of stroke compared to those aged >85 years without stroke.

Conclusions—The effect of stroke on dementia incidence in the population is not explained by common risk factors. At this time of population aging and increased stroke survival, more research is needed to determine to what extent efforts to reduce the incidence of stroke will affect the incidence of dementia. (*Stroke*. 2010;41:e41-e46.)

Key Words: dementia ■ epidemiology ■ review ■ stroke ■ systematic

AFTER YOU READ

Exercise 1. True, False, or Not Clear,
based on this study?

1. Little is known about the excess risk of dementia in stroke patients.
2. The authors systematically reviewed studies that compared the risk of incident dementia in stroke patients with that in subjects without stroke.
3. All of the studies in the review were conducted in a healthcare setting.
4. All of the subjects enrolled in the studies reviewed were aged ≥ 65 .
5. All of the subjects (stroke and non-stroke) in the studies reviewed were matched for age and sex.
6. Older stroke patients have twice the risk of incident dementia than the general population the same age.
7. The excess risk of incident dementia decreases after the age of 85.

8. Based on the results of the studies reviewed, common risk factors do not explain the effect of stroke on dementia incidence in the population.
9. Stroke patients survive longer now than in the past.
10. The authors conclude that reducing incidence of stroke will not reduce the incidence of dementia.

Exercise 2. Reflection

- What have I learned by reading this paper?
- Is the information provided clear?
- Is the information provided complete?
- Can I “take home” any of the information in this paper?
- What is my opinion on the study and its conclusions?
- Am I curious or interested enough to read the full text paper?

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Rethinking Screening for Breast Cancer and Prostate Cancer

Laura Esserman; Yiwey Shieh; Ian Thompson

JAMA. 2009;302(15):1685-1692 (doi:10.1001/jama.2009.1498)

<http://jama.ama-assn.org/cgi/content/full/302/15/1685>

Supplementary material	Author in the Room® Teleconference http://jama.ama-assn.org/cgi/content/full/302/15/1685/DC1
Correction	Contact me if this article is corrected.
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BEFORE YOU READ

Vocabulary practice

Exercise 1. Match the English word with its translation

- account for d a) prevedere
- anticipate b) carico, peso
- beneficial c) seno, mammella
- breast d) rappresentare
- burden e) benefico

Exercise 2. As above.

1. chance _____ a) riscontro, rilevamento
2. change _____ b) patologia
3. decade _____ c) possibilità, occasione
4. detection _____ d) cambiamento
5. disease _____ e) decennio

Exercise 3. As above.

1. early _____ a) crescere, aumentare
2. estimate _____ b) esito, prognosi

3. grow _____ c) presto, precoce
4. outcome _____ d) globale, complessivo
5. overall _____ e) stima

Exercise 4. As above.

1. previously _____ a) in precedenza
2. promote _____ b) ridurre
3. rate _____ c) notevole
4. reduce _____ d) promuovere, favorire
5. remarkable _____ e) tasso; percentuale

Exercise 5. Complete the chart.

	Infinitive	Past simple	Past participle	Meaning
1.	be	<i>was/were</i>	<i>been</i>	<i>essere</i>
2.	grow			
3.			had	
4.			made	
5.	think			
6.				potere

Exercise 6. Complete the chart.

	Noun	Verb	Meaning
1.	<i>observation</i>	observe	<i>osservare</i>
2.	assumption	_____	_____
3.	detection	_____	_____
4.	_____	estimate	_____
5.	explanation	_____	_____
6.	increase	_____	_____
7.	introduction	_____	_____
8.	prevention	_____	_____
9.	screening	_____	_____
10.	testing	_____	_____
11.	treatment	_____	_____

GRAMMAR TO GO!

Verb tenses

1. **Should** + infinitive: used to recommend, give advice.

New approaches for screening, early detection, and prevention for both diseases should be considered.

2. The **Present Simple**: used to express habitual action, state, or condition.

Breast cancer and prostate cancer account for 26% of all cancers in the United States.

3. The **Past Simple**: used to express completed action, with time defined.

In 1980, a white man's lifetime risk of prostate cancer was 1 in 116.

4. The **Present Perfect Simple**: used to express an action that started in the past and that is still happening or when time is not defined, and action is not completed. N.B. This is a present tense in English, not a past tense!

Two decades of screening have resulted in a significant increase in detection of early cancers.

Screening for both cancers has been promoted on the assumption that...

COMPARE: the Simple Past and the Present Perfect Simple:

- A. Yesterday **I went** to the cinema.
- B. I **have been** to the cinema 3 times this month.
- A. I **bought** a new book last weekend.
- B. I **have bought** 5 books so far this year.
- A. I **spoke** to my mother yesterday evening.
- B. I **have spoken** to my mother every evening this week.

Exercise 1. Do the verbs in these sentences refer to a past, completed action/state/condition (PS), or to an action/state/condition that is still true/still happening (PPS)?

1. The incidence of these cancers increased after the introduction of screening in 1980.
2. The incidence of these cancers has never returned to prescreening levels.
3. Screening has been promoted as the best way to reduce disease-associated morbidity and mortality.
4. Two decades of screening have resulted in a significant increase in detection of early cancers.
5. Prostate-specific antigen testing has nearly doubled the chance that a man will be diagnosed with prostate cancer in his lifetime.

Simplify your life! Is the action finished or still happening?

To read, you only have to understand verb forms, not construct them!

Exercise 2. Translate these sentences.

1. The incidence of these cancers increased after the introduction of screening in 1980.
2. The incidence of these cancers has never returned to prescreening levels.
3. Screening has been promoted as the best way to reduce disease-associated morbidity and mortality.
4. Two decades of screening have resulted in a significant increase in detection of early cancers.
5. Prostate-specific antigen testing has nearly doubled the chance that a man will be diagnosed with prostate cancer in his lifetime.

Rethinking Screening for Breast Cancer and Prostate Cancer

Laura Esserman, MD, MBA

Yiwey Shieh, AB

Ian Thompson, MD

BREAST CANCER AND PROSTATE cancer account for 26% of all cancers in the United States, with an estimated 386 560 patients diagnosed annually: 194 280 for breast cancer and 192 280 for prostate cancer.¹ For both, there are remarkable differences between outcomes of localized vs advanced disease (breast cancer: 5-year relative survival rates of 98.1% vs 27.1%; prostate cancer: 100% vs 31.7%).² As a result, screening for both cancers has been promoted on the assumption that early detection and treatment is the best way to reduce disease-associated morbidity and mortality.

Effect of Population-Based Screening

A large fraction of the US population participates in screening for prostate cancer and for breast cancer. About 50% of at-risk men have a routine prostate-specific antigen (PSA) test and 75% have previously had a PSA test.^{3,4} About 70% of women older than 40 years reported having a recent mammogram.⁵ Two decades of screening have resulted in a significant increase in detection of early cancers. Prostate-specific antigen testing has nearly doubled the chance that a man will be diagnosed with prostate cancer in his lifetime. In 1980, a white man's lifetime risk of prostate cancer was 1 in 11⁶; today it is 1 in 6.¹ A woman's lifetime risk of breast cancer was 1 in 12 in 1980; today it is 1 in 8.¹ If ductal carcinoma in situ (DCIS) is included, the risk of being

After 20 years of screening for breast and prostate cancer, several observations can be made. First, the incidence of these cancers increased after the introduction of screening but has never returned to prescreening levels. Second, the increase in the relative fraction of early stage cancers has increased. Third, the incidence of regional cancers has not decreased at a commensurate rate. One possible explanation is that screening may be increasing the burden of low-risk cancers without significantly reducing the burden of more aggressively growing cancers and therefore not resulting in the anticipated reduction in cancer mortality. To reduce morbidity and mortality from prostate cancer and breast cancer, new approaches for screening, early detection, and prevention for both diseases should be considered.

JAMA. 2009;302(15):1685-1692

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diagnosed with breast cancer, like prostate cancer, has almost doubled as well.


The increase in early cancers as a fraction of total cancers detected is not necessarily beneficial. The introduction of an optimal screening test should be followed by an increase in the rate of early disease followed by a decrease in regional disease while the overall detection rate remains constant.⁷ FIGURE 1 illustrates hypothetical optimal, worst-case, and intermediate-case scenarios, using 1980 breast cancer incidence rates as a starting point. In the worst case, screening leads to an increase in local disease detection without a corresponding decrease in regional disease, thereby increasing costs and morbidity due to overdiagnosis and overtreatment of non-life-threatening cancers. Although the scenarios are quite different, the percentage of early cancers detected, as a fraction of total cancers identified, increases from 50% to almost 70% in each case. This type of intermediate metric, often cited as evidence of success for screening programs, is potentially misleading.

How do breast and prostate cancer screening compare with these hypothetical scenarios? The data for breast can-

cer and prostate cancer (FIGURE 2) resemble the intermediate-case scenario at best. The incidence of invasive breast cancer (excluding in situ lesions) has increased substantially and remains higher than prescreening rates. SEER data⁸ show that localized (node negative, no skin or chest wall involvement) and regional (node positive, skin or chest wall involvement) breast cancer has declined slightly but far less than the increase in localized disease. The reported rate of advanced disease has decreased substantially for prostate cancer; however, about one-third of patients currently classified as having localized cancer are found to have extraprostatic disease at the time of surgical resection.¹¹ It is disappointing that the absolute numbers of more advanced disease have not decreased nearly as much as hoped for either cancer. Thus, neither screening test is optimal. Although the

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 CME available online at www.jamaarchivescme.com and questions on p 1710.

READ

Exercise 1. Scan the text to find this information.

1. What journal published this paper?
JAMA
2. When was it published?
3. What kind of text is this? (An Abstract? Editorial? Full text paper?)
4. Who are the authors of this paper?
5. What institution are they affiliated with?
6. When were breast and prostate screening (probably) introduced in the U.S.A.?
7. What percentage of all cancers in the U.S.A. is made up of breast cancer and prostate cancer?
8. What percentage of at-risk American men has a routine PSA test?
9. What percentage of American women aged > 40 years has reported recently having a mammogram?
10. What is a white American man's lifetime risk of prostate cancer?
11. What was it in 1980?
12. What is an American woman's lifetime risk of breast cancer?
13. What was it in 1980?

AFTER YOU READ

Exercise 1. True, False, or Not Clear, based on this study?

1. The authors are suggesting that current breast and prostate cancer screening programs do not reduce cancer morbidity and mortality.
2. The authors suggest three ways to improve current breast and prostate cancer screening programs.
3. Localized breast cancer has a better outcome than localized prostate cancer.
4. Screening has been promoted as a way to prevent breast/prostate cancer.
5. Breast and prostate cancer screening programs in the U.S.A. are free.

Exercise 2: Reflection

- What have I learned by reading this paper that I didn't already know?
- Is the information clear?
- Is the information complete?
- Can I "take home" any of the information in this paper?
- What is my opinion on this topic?
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ORIGINAL INVESTIGATION

Passive Smoking and Tuberculosis

Chi C. Leung, MBBS; Tai H. Lam, MD; Kin S. Ho, MBBS; Wing W. Yew, MBBS; Cheuk M. Tam, MBBS;
Wai M. Chan, MBBS; Wing S. Law, MBChB; Chi K. Chan, MBBS; Kwok C. Chang, MBBS; Ka F. Au, MBChB

Background: Increasing evidence has incriminated active smoking as a causal factor for tuberculosis (TB). However, the effect of secondhand tobacco smoke exposure on TB has not been similarly elucidated.

Methods: A cohort of 15 486 female never-smokers aged 65 to 74 years and living with their surviving husband were enrolled at 18 Elderly Health Centers in Hong Kong from 2000 to 2003 and followed up prospectively through linkage with the territory-wide TB notification registry and death registry for TB and death until December 31, 2008, using an identity card number as a unique identifier. The relationship between passive smoking and the development of TB was assessed with adjustment for other baseline characteristics.

Results: Passive exposure to secondhand tobacco smoke in the household was independently associated with ob-

structive lung disease (odds [OR], 1.43; 95% confidence interval [CI], 1.16-1.77) and diabetes mellitus (OR, 1.13; 95% CI, 1.02-1.26) at baseline and with the development of both active TB (hazard ratio [HR], 1.49; 95% CI, 1.01-2.19) and culture-confirmed TB (HR, 1.70; 95% CI, 1.04-2.80) on prospective follow-up after potentially confounding background variables were controlled for. Passive smoking accounted for 13.7% of active TB and for 18.5% of culture-positive TB in this cohort.

Conclusions: Similar to active smoking, passive exposure to secondhand tobacco smoke in the household also predisposes to the development of TB. Increased emphasis should therefore be put on tobacco control in national TB programs.

Arch Intern Med. 2010;170(3):287-292

BEFORE YOU READ

Vocabulary practice

Exercise 1. True or False? If False, write the correct Italian translation.

1. account for = commercialista?

False – rappresentare

2. assess = assessore?

3. background = sfondo?

4. both = barca?

5. causal = casuale?

6. death = morire?

7. health = sano?

8. however = sebbene?

9. husband = marito?

10. increasing = crescente?

11. predispose = favorire?

12. put = mettere, porre?

13. second-hand = di seconda mano?

14. should = dovrebbe?

15. smoking = fumante?

Exercise 2. Match the English word with its translation

- | | | |
|----------------|-------|-----------------------|
| 1. baseline | __c__ | a) perciò |
| 2. development | _____ | b) attraverso |
| 3. elderly | _____ | c) inizio |
| 4. household | _____ | d) ambiente domestico |
| 5. lung | _____ | e) sviluppo |
| 6. therefore | _____ | f) anziano |
| 7. through | _____ | g) polmone |

Exercise 3. What is the opposite of:

- | | |
|---------------|---------|
| 1. active? | passive |
| 2. death? | _____ |
| 3. elderly? | _____ |
| 4. female? | _____ |
| 5. increased? | _____ |
| 6. wide? | _____ |

Exercise 4. Complete the chart.

	Noun	Verb	Meaning
1	association	associate	associare
2	assess	_____	_____
3	development	_____	_____
4	_____	enroll	_____
5	exposure	_____	_____
6	_____	predispose	_____
7	smoking	_____	_____

Syntax practice

Exercise 1. Translate these sentences into Italian.

- Five thousand females were enrolled in the study.
- The relationship between passive smoking and the development of TB was assessed with adjustment for other baseline characteristics.
- Increasing evidence has incriminated active smoking as a causal factor for tuberculosis (TB).
- Passive exposure to secondhand tobacco smoke in the household was independently associated with obstructive lung disease.
- The effect of secondhand tobacco smoke exposure on TB has not been elucidated.

When a sentence is long and complex, find the verb. Use this as your reference point to identify the subject and the complement.

Break a long and complex sentence into "information blocks." Use articles, conjunctions, prepositions, and punctuation to do this.

READ

Exercise 1. Scan the text and find this information.

1. What journal published this paper?
2. When was it published?
3. What kind of text is this?
(An Abstract? Editorial? Full text paper?)
4. Who are the authors of this paper?
5. Why was the study conducted?
6. What kind of study was conducted?
7. How many subjects participated in the study?
8. What were the inclusion criteria?
9. What was the study setting?

ORIGINAL INVESTIGATION

Passive Smoking and Tuberculosis

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Conclusions: Similar to active smoking, passive exposure to secondhand tobacco smoke in the household also predisposes to the development of TB. Increased emphasis should therefore be put on tobacco control in national TB programs.

Arch Intern Med. 2010;170(3):287-292

AFTER YOU READ

Exercise 1. True, False, or Not Clear,
based on this study?

1. Smoking has been identified as a factor for TB.
2. TB incidence is increasing in China.
3. In Hong Kong more men than women smoke.
4. Almost 16 thousand middle-aged women resident in Hong Kong were enrolled in the study.
5. Obstructive lung disease and diabetes mellitus were associated with secondhand smoke exposure.
6. Almost 14% of study subjects had active TB accounted for by secondhand smoke.

7. Passive smoking is as dangerous as active smoking, in terms of health risks.
8. National TB programs in Hong Kong emphasize the risk of passive smoking.

Exercise 2: Reflection

- What have I learned by reading this paper that I didn't already know?
- Is the information clear?
- Is the information complete?
- Can I "take home" any of the information in this paper?
- What is my opinion on this topic?
- Am I curious or interested enough to read the full text paper?

Making the Diagnosis of Acute Appendicitis: Do More Preoperative CT Scans Mean Fewer Negative Appendectomies? A 10-year Study¹

Courtney A. Courney, MD
 Rendon C. Nelson, MD
 Mayur B. Patel, MD
 Courtney Cochran, BSRT, RDMS
 Leslie G. Dodd, MD
 David M. DeLong, PhD
 Craig A. Beam, PhD
 Steven Vaslef, MD, PhD

Purpose:

To determine the frequency of preoperative computed tomography (CT) in the evaluation of patients suspected of having appendicitis at one institution during the past 10 years and to determine whether changes in CT utilization were associated with changes in the negative appendectomy rate.

Materials and Methods:

Institutional review board approval was obtained, and a waiver of informed consent was granted for this HIPAA-compliant study. A surgical database search yielded medical record numbers of 923 patients (536 [56.9%] men and 389 [43.1%] women; mean age, 38 years [range, 18–93 years]) who underwent urgent appendectomy between January 1998 and September 2007. Patients who were younger than 18 years of age at the time of surgery were excluded. CT, pathology, and surgery reports were reviewed. By using logistic regression, changes in the proportion of patients undergoing CT and in the proportion of patients undergoing each year appendectomy in which the appendix was healthy were evaluated. Subgroup analyses based on patient age (≤ 45 years or > 45 years) and sex also were performed.

BEFORE YOU READ

Vocabulary practice

Exercise 1. What is a synonym for:

1. evaluate? **assess**
2. prior to? _____
3. prove? _____
4. purpose? _____
5. rising? _____

Exercise 2. Match the English word with its translation

- | | | |
|--------------|--------------|--------------------------------------|
| 1. advances | <u> c </u> | a) chirurgico |
| 2. grant | _____ | b) spessore |
| 3. shift | _____ | c) progressi |
| 4. surgical | _____ | d) movimento (laterale); spostamento |
| 5. thickness | _____ | e) concedere |

Exercise 3. As above.

- | | | |
|------------|-------|---------------|
| 1. timing | _____ | a) sottoporre |
| 2. toward | _____ | b) verso |
| 3. undergo | _____ | c) produrre |
| 4. whether | _____ | d) se |
| 5. yield | _____ | e) tempistica |

Exercise 4. What is the opposite of:

- | | |
|-------------|------------|
| 1. good? | bad |
| 2. more? | _____ |
| 3. women? | _____ |
| 4. younger? | _____ |

Exercise 5. Complete the chart.

Noun	Verb	Meaning
1. change	change	cambiamento
2. diagnosis	_____	_____
3. evaluation	_____	_____
4. _____	perform	_____
5. reduction	_____	_____
6. surgery	_____	_____
7. _____	mean	_____

Text organizers

ADDING INFORMATION

- | | |
|---------------|---------|
| • furthermore | inoltre |
| • moreover | inoltre |
| • what's more | inoltre |

LOGICAL RELATION

- | | |
|-------------|--------|
| • hence | perciò |
| • as | poiché |
| • since | poiché |
| • therefore | perciò |
| • thus | perciò |

CONTRAST

- | | |
|--------------------------------|------------|
| • although/though | sebbene |
| • despite/in spite of | nonostante |
| • even though | anche se |
| • however | tuttavia |
| • nevertheless/
nonetheless | tuttavia |
| • regardless of | nonostante |
| • still | tuttavia |
| • whereas | mentre |
| • while | mentre |
| • whilst | mentre |

GIVING EXAMPLES

- | | |
|----------------|------------------|
| • for instance | ad esempio |
| • like | come, ad esempio |
| • such as | come, ad esempio |

Do NOT guess the meaning of text organizers!

Keep this list handy (a portata di mano) when you're reading and refer to it when necessary.

An excellent idea! Photocopy this list and refer to it when you read!

GRAMMAR TO GO!**Verb forms**

1. The **-ing** form: used as a verb (present participle) in continuous tenses and as a noun (gerund).

She *is studying* to become a doctor.
(*sta studiando ...*)

Reading is one of my favorite activities.
(*la lettura ...*)

2. The infinitive with "to": used to express the purpose of an action.

I went to the market *to buy* some apples.
(*per comprare*)

Expressing quantity

1. little = poco: used for uncountable nouns.

She has *little time* for her hobbies.
(*poco tempo*)

2. few = pochi: used for countable nouns.

She has *few friends*.
(*pochi amici*)

3. comparative/superlative forms:

little – less – the least
few – fewer – the fewest

4. much = molto: used for uncountable nouns, usually in the negative and interrogative forms.

She doesn't have *much time* for her hobbies.
(*non molto tempo*)

5. many = molti: used for countable nouns, usually in the negative and interrogative forms.

She doesn't have *many friends*.
(*non molti amici*)

6. comparative/superlative forms:

much/many – more – the most

READ

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4. Who are the authors of this paper?
5. What institution are they affiliated with?
6. Why was the study conducted?
7. What kind of study was conducted?
8. How many subjects participated in the study?
9. What were the inclusion criteria?
10. Were there any exclusion criteria?

AFTER READ

Exercise 1: True, False, or Not Clear, based on this study?

1. This was a prospective cohort study.
2. The findings are statistically significant.
3. There are two declared aims of the study.
4. The records of almost one thousand patients were examined.
5. The average age of the female subjects was nearly 40 years.
6. The average age of the male subjects was just over 50 years.
7. The authors reviewed five different kinds of reports, including CT, pathology, and surgery reports.
8. Significantly more preoperative CTs were performed in 2007 than in 1998.
9. More women ≤ 45 years underwent an appendectomy in 2007 than did in 1998.
10. The association of this finding to CT use cannot be demonstrated.

Making the Diagnosis of Acute Appendicitis: Do More Preoperative CT Scans Mean Fewer Negative Appendectomies? A 10-year Study¹

Courtney A. Coursey, MD
 Rendon C. Nelson, MD
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Purpose: To determine the frequency of preoperative computed tomography (CT) in the evaluation of patients suspected of having appendicitis at one institution during the past 10 years and to determine whether changes in CT utilization were associated with changes in the negative appendectomy rate.

Materials and Methods: Institutional review board approval was obtained, and a waiver of informed consent was granted for this HIPAA-compliant study. A surgical database search yielded medical record numbers of 925 patients (526 [56.9%] men and 399 [43.1%] women; mean age, 38 years [range, 18–95 years]) who underwent urgent appendectomy between January 1998 and September 2007. Patients who were younger than 18 years of age at the time of surgery were excluded. CT, pathology, and surgery reports were reviewed. By using logistic regression, changes in the proportion of patients undergoing CT and in the proportion of patients undergoing each year appendectomy in which the appendix was healthy were evaluated. Subgroup analyses based on patient age (≤ 45 years or > 45 years) and sex also were performed.

Results: Prior to urgent appendectomy, 18.5% of patients underwent preoperative CT in 1998 compared with 93.2% of patients in 2007. The negative appendectomy rate for women 45 years of age and younger decreased from 42.9% in 1998 to 7.1% in 2007. However, the timing of the decline in negative appendectomy rates for women 45 years and younger could not be proved to be associated with the increase in CT use. There was no significant trend toward a lower negative appendectomy rate for men regardless of age or for women older than 45 years of age with increased use of preoperative CT. The shift from single-detector CT to multidetector CT and the use of decreasing section thickness also correlated with a reduction in false-positive diagnoses.

Conclusion: Rising utilization of preoperative CT and advances in technology coincided with a decrease in the negative appendectomy rate for women 45 years and younger but not in men of any age or women older than 45 years.

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Exercise 2: Reflection

- What have I learned by reading this paper that I didn't already know?
- Is the information clear?
- Is the information complete?
- Can I "take home" any of the information in this paper?
- What is my opinion on this topic?
- Am I curious or interested enough to read the full text paper?

Just for fun!

Which is correct, **make** or **do**?

1. **make** a diagnosis
fare una diagnosi
2. _____ laboratory tests
fare esami di laboratorio
3. _____ a house call
fare una visita a domicilio
4. _____ a mistake
sbagliare
5. _____ a CT
fare/eseguire una TAC
6. _____ rounds
fare la visita di reparto
7. _____ an operation
eseguire un intervento

BMJ

RESEARCH

Sustaining reductions in catheter related bloodstream infections in Michigan intensive care units: observational study

Peter J Pronovost, professor,¹ Christine A Goeschel, director, patient safety and quality initiatives,² Elizabeth Colantuoni, assistant professor,¹ Sam Watson, senior vice president, patient safety and quality,² Lisa H Lubomski, assistant professor,¹ Sean M Berenholtz, associate professor,¹ David A Thompson, assistant professor,¹ David J Sinopoli, instructor,³ Sara Cosgrove, assistant professor,⁴ J Bryan Sexton, associate professor,¹ Jill A Marsteller, assistant professor,¹ Robert C Hyzy, associate professor,⁵ Robert Welsh, chief,⁷ Patricia Posa, special project coordinator,⁸ Kathy Schumacher, director, quality, safety, standards and outcomes,² Dale Needham, assistant professor¹⁰

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ABSTRACT

Objectives To evaluate the extent to which intensive care units participating in the initial Keystone ICU project sustained reductions in rates of catheter related bloodstream infections.

Design Collaborative cohort study to implement and evaluate interventions to improve patients' safety.

Setting Intensive care units predominantly in Michigan, USA.

Intervention Conceptual model aimed at improving

Conclusions The reduced rates of catheter related bloodstream infection achieved in the initial 18 month post-implementation period were sustained for an additional 18 months as participating intensive care units integrated the intervention into practice. Broad use of this intervention with achievement of similar results could substantially reduce the morbidity and costs associated with catheter related bloodstream infections.

INTRODUCTION

BEFORE YOU READ

Vocabulary practice

Exercise 1. Choose the correct translation for each word.

- | | |
|----------------|--------------|
| 1. month | |
| a) <i>mese</i> | b) bocca |
| 2. as | |
| a) come | b) perciò |
| 3. collect | |
| a) raccogliere | b) collegare |
| 4. implement | |
| a) iniziare | b) attuare |

5. improve
a) provare b) migliorare
6. mean
a) media b) significato
7. measure
a) misurazione b) misura, parametro
8. measurement
a) misurazione b) misura
9. safety
a) certezza b) incolumità
10. setting
a) impostare b) contesto
11. substantially
a) sostanzialmente b) in modo significativo
12. sustain
a) mantenere b) dichiarare

2. Design: ____ (a) cohort study to ____ (b) and evaluate ____ (c) to improve patients' safety.

- (a) collaboration/collaborative
(b) implement/implementation
(c) interventions/intervened

3. During the ____ (a) period, the mean bloodstream ____ (b) rate did not significantly ____ (c) from the initial 18 month post-implementation period (-1%, 95% confidence interval -9% to 7%).

- (a) sustain/sustainability
(b) infect/infection
(c) to change/change

Exercise 2. Match the English word with its translation.

1. achieve d a) cambiamento
2. bloodstream ____ b) ampio
3. broad ____ c) sangue; circolo ematico
4. change ____ d) raggiungere un obiettivo
5. median ____ e) mediana
6. main ____ f) esito
7. mean ____ g) media
8. outcome ____ h) tasso
9. rate ____ i) chi investe o ha interessi in un progetto
10. stakeholder ____ l) principale

Exercise 3. For each blank, choose the correct word from the options given.

1. Objectives: ____ (a) the extent to which intensive care units participating in the initial Keystone ICU project sustained ____ (b) in rates of catheter related bloodstream ____ (c).
- (a) **to evaluate**/evaluation
(b) reduce/reductions
(c) infects/infections

Exercise 4. Based on the ending, what kind of word is missing, **Verb, Noun, Adverb, or Adjective**?

- The reduced rates of infection were (1) ____ ed for an additional 18 months.
- Intensive care unit teams were (2) ____ ed to integrate this intervention into staff (3) ____ tion, collect (4) ____ ly data from hospital infection control staff, and report infection rates to appropriate (5) ____ s.
- Ninety (87%) of the original 103 intensive care units (6) ____ ed, reporting 1532 intensive care unit (7) ____ s of data and 300 310 catheter days during the (8) ____ ability period.
- Broad use of this (9) ____ tion could (10) ____ ly reduce morbidity.

1. **verb**
2. _____
3. _____
4. _____
5. _____
6. _____
7. _____
8. _____
9. _____
10. _____

If you don't know what a word means, look at its prefix/suffix/ending, as well as its position in the sentence. Knowing if a word is a verb, noun, adjective, or adverb can help you infer its meaning from the context.

Syntax practice

Step 1. Start with the original – and impossible! – sentence.

Sustaining reductions in catheter related bloodstream infections in Michigan intensive care units: observational study

Step 2. Identify articles, propositions, conjunctions, and punctuation to form “information blocks.”

*Sustaining reductions **in** catheter related bloodstream infections **in** Michigan intensive care units: observational study*

Step 3. Translate each information block.

- Sustaining reductions in: ***mantenere stabili le riduzioni in***
- catheter related bloodstream infections in: ***infezioni del sangue associate al catetere in***
- Michigan intensive care units: ***unità di terapia intensiva nel Michigan***
- observational study: ***uno studio osservazionale***

Step 4. Reconstruct the translated sentence.

Mantenere stabili le riduzioni delle infezioni del sangue associate al catetere nelle unità di terapia intensiva nel Michigan: uno studio osservazionale.

E voilà!

Step 1. Start with the original – and impossible! – sentence.

To evaluate the extent to which intensive care units participating in the initial Keystone ICU project sustained reductions in rates of catheter related-bloodstream infections.

Step 2. Identify the main verb(s).

To evaluate the extent to which intensive care units participating in the initial Keystone ICU project ***sustained*** reductions in rates of catheter related-bloodstream infections.

Step 3. Identify articles, propositions, conjunctions, and punctuation to form “information blocks.”

To evaluate the extent to which intensive care units participating ***in the*** initial Keystone ICU project ***sustained*** reductions in rates of catheter related - bloodstream infections.

Step 4. Translate each information block.

- To evaluate: ***valutare***
- the extent to which: ***fino a che punto***
- intensive care units participating in the: ***unità di terapia intensiva partecipanti nel***
- initial Keystone ICU project: ***progetto Keystone ICU iniziale***
- sustained reductions in: ***mantennero stabili le riduzioni in***
- rates of: ***tassi di***
- catheter-related bloodstream infections: ***infezioni del sangue associate al catetere.***

Step 5. Reconstruct the translated sentence.

Valutare fino a che punto le unità di terapia intensiva partecipanti al progetto iniziale “Keystone ICU” mantennero stabili le riduzioni dei tassi di infezioni del sangue associate all’uso del catetere.

E voilà!

Sustaining reductions in catheter related bloodstream infections in Michigan intensive care units: observational study

Peter J Pronovost, professor,¹ Christine A Goeschel, director, patient safety and quality initiatives,¹ Elizabeth Colantuoni, assistant professor,¹ Sam Watson, senior vice president, patient safety and quality,² Lisa H Lubomski, assistant professor,¹ Sean M Berenholtz, associate professor,¹ David A Thompson, assistant professor,¹ David J Sinopoli, instructor,³ Sara Cosgrove, assistant professor,⁴ J Bryan Sexton, associate professor,¹ Jill A Marsteller, assistant professor,⁵ Robert C Hyzy, associate professor,⁶ Robert Welsh, chief,⁷ Patricia Posa, special project coordinator,⁸ Kathy Schumacher, director, quality, safety, standards and outcomes,⁹ Dale Needham, assistant professor¹⁰

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Cite this as: BMJ 2010;340:c309 doi:10.1136/bmj.c309

ABSTRACT

Objectives To evaluate the extent to which intensive care units participating in the initial Keystone ICU project sustained reductions in rates of catheter related bloodstream infections.

Design Collaborative cohort study to implement and evaluate interventions to improve patients' safety.

Setting Intensive care units predominantly in Michigan, USA.

Intervention Conceptual model aimed at improving clinicians' use of five evidence based recommendations to reduce rates of catheter related bloodstream infections rates, with measurement and feedback of infection rates. During the sustainability period, intensive care unit teams were instructed to integrate this intervention into staff orientation, collect monthly data from hospital infection control staff, and report infection rates to appropriate stakeholders.

Main outcome measures Quarterly rate of catheter related bloodstream infections per 1000 catheter days during the sustainability period (19-36 months after implementation of the intervention).

Results Ninety (87%) of the original 103 intensive care units participated, reporting 1532 intensive care unit months of data and 300 310 catheter days during the sustainability period. The mean and median rates of catheter related bloodstream infection decreased from 7.7 and 2.7 (interquartile range 0.6-4.8) at baseline to 1.3 and 0 (0-2.4) at 16-18 months and to 1.1 and 0 (0.0-1.2) at 34-36 months post-implementation. Multilevel regression analysis showed that incidence rate ratios decreased from 0.68 (95% confidence interval 0.53 to 0.88) at 0-3 months to 0.38 (0.26 to 0.56) at 16-18 months and 0.34 (0.24-0.48) at 34-36 months post-implementation. During the sustainability period, the mean bloodstream infection rate did not significantly change from the initial 18 month post-implementation period (-1%, 95% confidence interval -9% to 7%).

Conclusions The reduced rates of catheter related bloodstream infection achieved in the initial 18 month post-implementation period were sustained for an additional 18 months as participating intensive care units integrated the intervention into practice. Broad use of this intervention with achievement of similar results could substantially reduce the morbidity and costs associated with catheter related bloodstream infections.

INTRODUCTION

Catheter related bloodstream infections cause considerable morbidity, mortality, and healthcare costs.^{1,2} An estimated 82 000 catheter related bloodstream infections and up to 28 000 attributable deaths occur in intensive care units annually,³ and each infection costs about \$45 000 (£28 000; €31 000).⁴ In an ongoing quality improvement project, known as the Michigan Health & Hospital Association (MHA) Keystone ICU project, these infections were substantially reduced in 103 participating intensive care units.⁵ The median infection rate per 1000 catheter days dropped from 2.7 at baseline to 0 within three months after implementation of an evidence based intervention. Eighteen months after implementation, infection rates had decreased by 66% from baseline. However, whether these initial results were sustained was not known.

Limited evidence assessing the sustainability of quality improvement projects beyond the initial implementation and evaluation period is available.^{6,7} To evaluate sustainability, a quality improvement project must have an adequate infrastructure to sustain activities beyond its initial phase. After the 18 month post-implementation evaluation period, most hospitals participating in the Keystone ICU project continued to submit data on infection rates. The objective of this study was to evaluate the extent to which intensive care units participating in the initial Keystone ICU project sustained reductions in rates of catheter related bloodstream

READ

Exercise 1. Scan the text and find this information.

1. What journal published this paper?
2. When was it published?
3. What kind of text is this? (An Abstract? Editorial? Full text paper?)
4. Who are the authors of the paper?
5. What institution are they affiliated with?
6. Why was the study conducted?
7. What kind of study was conducted?
8. How many subjects participated in the study?
9. What were the main outcome measures?

AFTER YOU READ

Exercise 1. True, False, or Not Clear, based on this study?

1. This paper reports on the initial Keystone ICU project.
2. Almost 90% of the ICUs in Michigan participated in this study.
3. The initial Keystone ICU project lasted eighteen months.
4. Only one clinical problem was examined in this project.
5. ICUs participating in the project implemented a 6-step intervention.
6. This paper reports that the intervention's positive results last over time.
7. The authors suggest that this intervention can reduce morbidity and costs related to catheter-related bloodstream infections.

Exercise 2. Complete this chart with the data reported in the text.

	Baseline	16-18 months	34-36 months
<i>Infection rates</i>			
Mean	7.7	1.3	1.1
Median			
Interquartile range			
<i>Incidence rate ratio</i>			
Range			

Exercise 3. Reflection

- What have I learned by reading this paper that I didn't already know?
- Is the information clear?
- Is the information complete?
- Can I "take home" any of the information in this paper?
- What is my opinion on this topic?
- Am I curious or interested enough to read the full text paper?

Exercise 1. Choose the correct word.

1. The purpose of this study was to a the effectiveness of a new therapy.
a. assess b. assessment c. assesses d. assessed
2. A cancer registry _____ data on incidence of tumors.
a. collection b. collecting c. collect d. collects
3. No change was _____.
a. detect b. detects c. detected d. detection
4. _____ in the study was very low.
a. To enroll b. Enrolled c. Enroll d. Enrollment
5. All clinical parameters were _____.
a. evaluation b. evaluated c. evaluates d. evaluate
6. No patient showed any _____ after treatment.
a. improve b. improved c. improving d. improvement
7. Researchers found that _____ of new guidelines was difficult.
a. to implement b. implemented c. implementation d. implements
8. The incidence rates were _____ using usual statistical models.
a. to measure b. measurable c. measure d. measured
9. The thoracic surgery team _____ 15 operations.
a. perform b. performed c. performance d. to perform
10. The study showed a _____ in baseline values.
a. reduction b. reduces c. reducible d. reduced

Exercise 2. Complete the chart.

	Infinitive	Past simple	Past participle	Meaning
1	be	<i>was/were</i>	<i>been</i>	<i>essere</i>
2	come			
3	do			
4	drink			
5	eat			
6	find			
7	go			
8	grow			
9	have			
10	know			
11	make			
12	put			
13	read			
14	think			
15	understand			
16	write			

Exercise 3. Choose the synonym.

1. anticipate	<i>expect</i> /move
2. baseline	basic/start
3. disease	illness/health
4. elderly	middle-aged/old
5. main	primary/secondary
6. outcome	demonstration/result
7. prove	demonstrate/attempt
8. purpose	aim/proposal
9. setting	background/context
10. woman	female/male

Exercise 4. True or False? If False, write the correct translation.

1. achieve = starnutire	<u> <i>F</i> </u>	<i>portare a termine, conseguire</i>
2. affect = affettare	<u> </u>	<u> </u>
3. as = asino	<u> </u>	<u> </u>
4. breast = mammella	<u> </u>	<u> </u>
5. burden = uccello	<u> </u>	<u> </u>
6. develop = disegnare	<u> </u>	<u> </u>

Exercise 5. Complete the text using one of the words in the box.

despite enrollment is associated may median months reduces women

THE NEW ENGLAND JOURNAL OF MEDICINE

ORIGINAL ARTICLE

Acyclovir and Transmission of HIV-1 from Persons Infected with HIV-1 and HSV-2

C. Celum, A. Wald, J.R. Lingappa, A.S. Magaret, R.S. Wang, N. Mugo, A. Mujugira, J.M. Baeten, J.I. Mullins, J.P. Hughes, E.A. Bukusi, C.R. Cohen, E. Katabira, A. Ronald, J. Kiari, C. Farquhar, G.J. Stewart, J. Makhema, M. Essex, E. Were, K.H. Fife, G. de Bruyn, G.E. Gray, J.A. McIntyre, R. Manongi, S. Kapiga, D. Coetzee, S. Allen, M. Inambao, K. Kayitenkore, E. Karita, W. Karwaka, S. Delany, H. Rees, B. Wwaka, W. Stevens, M.S. Campbell, K.K. Thomas, R.W. Coombs, R. Morrow, W.L.H. Whittington, M.J. McElrath, L. Barnes, R. Ridzon, and L. Corey, for the Partners in Prevention HSV/HIV Transmission Study Team*

ABSTRACT

BACKGROUND

Most persons who are infected with human immunodeficiency virus type 1 (HIV-1) are also infected with herpes simplex virus type 2 (HSV-2), which is frequently reactivated and *is associated* with increased plasma and genital levels of HIV-1. Therapy to suppress HSV-2 *the frequency of reactivation of HSV-2 as well as HIV-1 levels*, suggesting that suppression of HSV-2 *reduce the risk of transmission of HIV-1*.

METHODS

We conducted a randomized, placebo-controlled trial of suppressive therapy for HSV-2 (acyclovir at a dose of 400 mg orally twice daily) in couples in which only one of the partners was seropositive for HIV-1 (CD4 count, ≥ 250 cells per cubic millimeter) and that partner was also infected with HSV-2 and was not taking antiretroviral therapy at the time of *The primary end point was transmission of HIV-1 to the partner who was not initially infected with HIV-1; linkage of transmissions was assessed by means of genetic sequencing of viruses.*

RESULTS

A total of 3408 couples were enrolled at 14 sites in Africa. Of the partners who were infected with HIV-1, 68% were *and the baseline* CD4 count was 462 cells per cubic millimeter. Of 132 HIV-1 seroconversions that occurred after randomization (an incidence of 2.7 per 100 person-years), 84 were linked within couples by viral sequencing: 41 in the acyclovir group and 43 in the placebo group (hazard ratio with acyclovir, 0.92, 95% confidence interval [CI], 0.60 to 1.41; $P=0.69$). Suppression with acyclovir reduced the mean plasma concentration of HIV-1 by 0.25 \log_{10} copies per milliliter (95% CI, 0.22 to 0.29; $P<0.001$) and the occurrence of HSV-2-positive genital ulcers by 73% (risk ratio, 0.27; 95% CI, 0.20 to 0.36; $P<0.001$). A total of 92% of the partners infected with HIV-1 and 84% of the partners not infected with HIV-1 remained in the study for 24 *The level of adherence to the dispensed study drug was 96%. No serious adverse events related to acyclovir were observed.*

CONCLUSIONS

Daily acyclovir therapy did not reduce the risk of transmission of HIV-1, *a reduction in plasma HIV-1 RNA of 0.25 \log_{10} copies per milliliter and a 73% reduction in the occurrence of genital ulcers due to HSV-2.* (ClinicalTrials.gov number, NCT00194519)

The authors' full names, degrees, and affiliations are listed in the Appendix. Address reprint requests to Dr. Celum at the Department of Global Health, University of Washington, Harborview Medical Center, 325 Ninth Ave., Box 359927, Seattle, WA 98104.

*Other members of the Partners in Prevention HSV/HIV Transmission Study Team are listed in the Supplementary Appendix, available with the full text of this article at NEJM.org.

This article (10.1056/NEJMoa0904849) was published on January 20, 2010, at NEJM.org.

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DON'T panic if you don't know what a word means. Not all words are ESSENTIAL to understanding, and you can often infer (intuire) the meaning from the context.

Exercise 6. Do you know what the highlighted words mean? Are they essential (*E*) or non-essential (*N-E*) to understanding the text?

kidney *E* injury relies on underlying recover
disorder however still Further reliable

Cochrane Database of Systematic Reviews 2010,
Issue 1. Art. No.: CD005426. DOI:
10.1002/14651858.CD005426.pub2.

[Intervention Review]

Nutritional support for acute kidney injury

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Abstract

Background Treatment for acute kidney Injury (AKI) primarily relies on treating the underlying cause and maintaining the

patient until kidney function has recovered. Enteral and parenteral nutrition are commonly used to treat nutritional disorders in AKI patients, however their efficacy in treating AKI are still debated.

...
Authors' conclusions There is not enough evidence to support the effectiveness of nutritional support for AKI. Further high quality studies are required to provide reliable evidence of the effect and safety of nutritional support.

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Exercise 7. What do you think these words mean, based on the context?

kidney injury relies on underlying
recover disorder however still
Further reliable

ONLY use a dictionary when the word is ESSENTIAL. DO NOT use a dictionary when the word is NOT essential. Circle the word and continue reading!

CROSSWORD

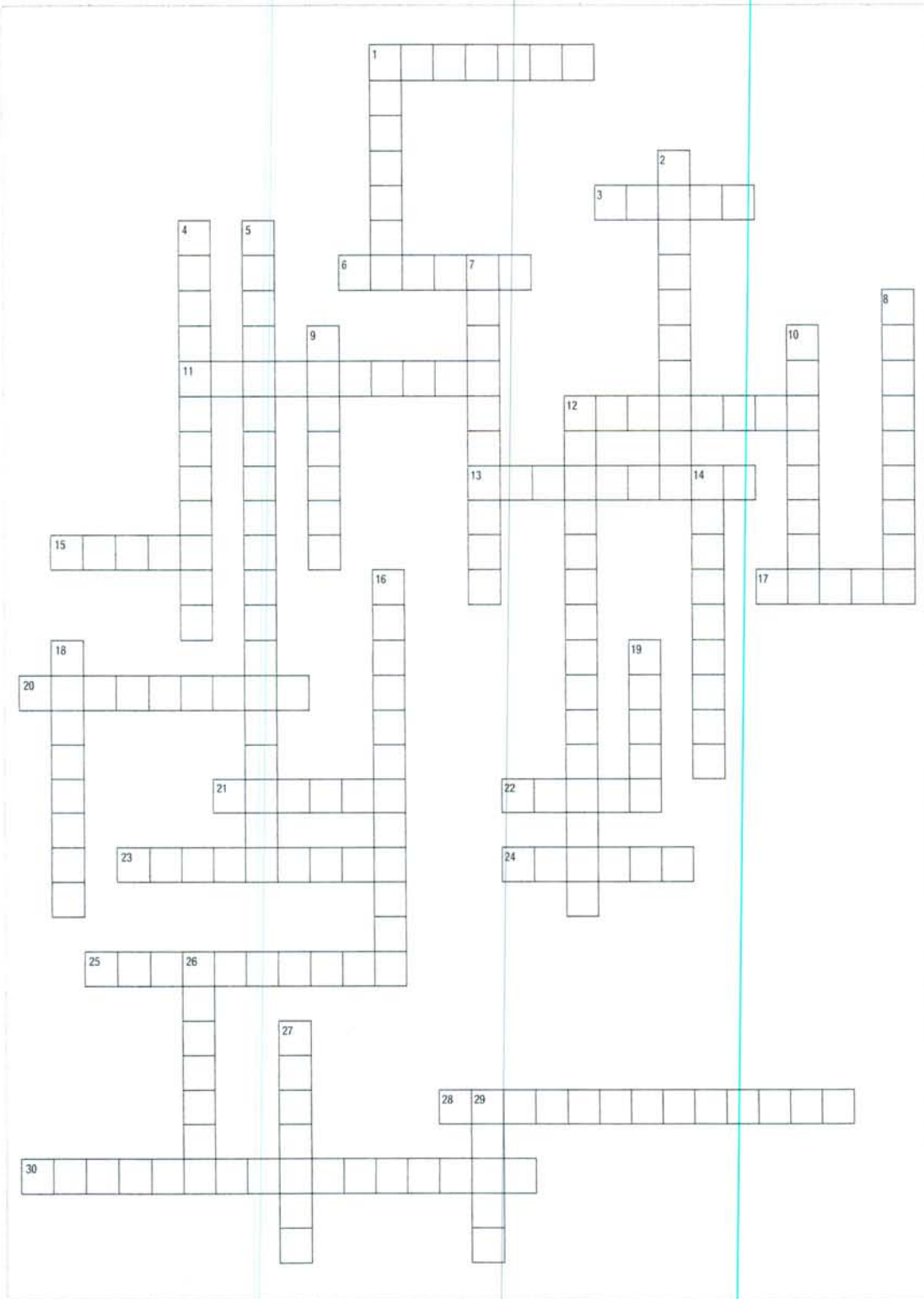
Write the Italian translation for these English words in the squares.

Across

1. early
3. good
6. therefore
11. through
12. should
13. sustain
15. women
17. without
20. increasing
21. health
22. long
23. grant
24. treat
25. timing
28. diagnose
30. overall

Down

1. lung
2. undergo
4. survive
5. shift
7. safety
8. surgery
9. causal
10. grow
12. findings
14. compared to
16. prior to
18. yield
19. wide
26. leave
27. female
29. stroke



There is no "right" or "wrong" strategy, only "effective" or "not effective."

Evidence-based learning: do what works for you!

Invest your time and energy in what is **USEFUL!**

Study **ONLY** those words that are useful to you and your work/life.

Study only the words that you find difficult to remember.

Use any strategy that makes reading easier and faster!

Tips and strategies for learning vocabulary

Vocabulary can be divided into three categories: words you know, new words, and "vaguely familiar words." Generally, words in this third group are the words you have to study. The question, of course, is **how**?

Look at these 15 words. Which are useful for you personally? Which words do you need to learn? (There is no correct answer – the choice is subjective!)

1. cingolo della spalla
2. miopia
3. sangue
4. cartella clinica
5. rilevare
6. chirurgia
7. vescica
8. pressione arteriosa
9. dato preliminare
10. esito
11. erogazione
12. cute
13. diffusione (di una malattia)
14. sottoporre
15. articolazione

What do the following 10 words mean? Learn the words you do not remember – they are all useful words! **N.B.** Do **not** use the glossary to do this exercise!

1. assess
2. available
3. detect
4. doctor
5. physician
6. heart
7. outcome
8. likely
9. finding
10. wide

1. Flashcards – '5 x 5 x 5' = 5 cards, 5 times a day, for 5 days!

- Use 1 flashcard per word.
- Write the English word on one side and the Italian word on the other side.
- Repeat, repeat, repeat! From English to Italian, from Italian to English. Repeat, repeat, repeat! Five times a day for five days! Repeat, repeat, repeat!
- Always keep your flashcards with you – in your pocket, in your bag, on your desk... Ask a friend, colleague or family member to test you!
- Remember that your objective (for reading) is only to recognize the word, **not** to write it or say it. Don't worry about spelling or pronunciation!
- When you have learned these five words, start with a new group of five words.

2. Sticky notes (Post-it®)

Use sticky notes instead of flashcards. Put a sticky note on your computer screen, on the door to your office, on a wall, on the bathroom mirror – anywhere you can see it all day, every day! **N.B.** It's better not to stick the sticky notes all in the same place. Distribute them around your office or home. This will help your memory!

3. Crib sheets

These are the indispensable *bigliettini* that students use during exams! For example, cut out the list of text organizers in Text 4 (p. 32) and refer to it when you read.

4. Associations

Associating a difficult word with an image, another word, or even a sound, can be very helpful.

5. Vocabulary notebooks

Vocabulary notebooks can be organized alphabetically – from English to Italian or from Italian to English – or chronologically. Chronological order creates a "context," which can be helpful.

For example, let's say that you want to learn the highlighted words in the text below.

Cochrane Database of Systematic Reviews
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10.1002/14651858.CD007169.pub2.

[Intervention Review]

Music therapy for end-of-life care

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ABSTRACT

Background

Music therapy in end-of-life care aims to improve a person's quality of life by helping relieve symptoms, addressing psychological needs, offering support, facilitating communication, and meeting spiritual needs. In addition, music therapists assist family and caregivers with coping, communication, and grief/bereavement.

Write them on the same page in your vocabulary notebook. It's a good idea to write the title of the article at the top of the page, and the date you read this article.

- relieve – dare sollievo
- address – trattare; porre l'attenzione
- caregiver – colui che si occupa di un malato
- cope – fare fronte a (psicologicamente)
- grief – dolore, angoscia, pena
- bereavement – lutto

Read regularly.

*The more you read,
the easier it becomes.
Practice makes
perfect!*