The ABCs of Medical Translation:

Strategies to Identify, Translate, and Manage Acronyms and Abbreviations



Please start the quiz while you wait!

2009 ATA Conference, New York



Pop quiz!

- 1. The common medical abbreviation amp stands for:
 - A. amputation
- B. ampule
 - C. ampere
 - D. admission
- 2. R/O HIV & flu.
 - A. rule out human immunodeficiency virus and influenza
 - B. rule out human intestinal virus and fluid restriction
 - C. reduce output of hepatic intravenous volume and fluid restriction
 - D. resume order of hepatic intravenous volume and fluid restriction
- 3. Transport pt to OT tid via W/C.
 - A. transport patient to occupational therapy three time a day via wheel chair
 - B. transport patterns to outside three times a week via water canal
 - C. transport printer to occupational therapy three time a week via wheel chair
 - D. transport patient to occupational therapy three times a week via wheel chair
- 4. The common medical abbreviation BS does not stand for:
 - A. blood sugar
 - B. bowel sounds
 - C. breath sounds
- D. biopsy signs
- 5. The common medical abbreviation *Tx* stands for:
 - A. treatment
 - B. traction
 - C. thoracic examination
- D. therapy

Why so many?

A convenient time and space saver

A way of avoiding the potential misspelling



Inherent problems

- Various meanings of a single abbreviated form
 - → OD can mean once daily, right eye (oculus dexter), occupational disease, overdose, etc.
- Various expressions of a single abbreviated form

→ AP, A.P., ap, and A/P all mean "anterior-posterior"

- Misinterpretation of handwriting/ambiguities
 - → "three drops in ® ear" (right) misinterpreted as "three drops in rear" "HCT250mg" (hydrocortisone 250 mg) as "HCTZ50mg" (hydrochlorothiazide 50 mg)
- Wasted time researching intended meanings

Problems amplified by translation

- Sound-based acronyms & pseudo-blend abbreviations
- Terminology shifts between languages
- Inversions
- English retained in foreign text
- Spelling variations in British vs.
 American English
- Use of symbols, shorthand, and designations



Procedures:

 CABG (coronary artery bypass graft), pronounced "cabbage" and commonly known as "bypass surgery"



- (FR) le pontage aorto-coronarien (PAC) or CABG
- (IT) il bypass aorto-coronarico (BAC) or CABG or cabbage
- (ES) el bypass arterial coronaria or CABG
- (DE) der aorto-coronarer-venen-bypass (ACVB)

Orders:

- ELISA (enzyme-linked immunosorbent assay), easily mistaken as a name, AKA enzyme immunoassay (AIE)
 - (FR) la méthode immunoenzymatique (MI) or le dosage d'immunosorption liée à enzyme or ELISA
 - (IT) il dosaggio immune adsorbito legato ad un enzima or ELISA
 - (ES) el análisis de inmunoabsorción Ligado a anzimas or ELISA
 - (DE) ein enzymgekoppelter immunadsorptionstest (EIA) or der bezeichnet ein immunologisches achweisverfahren or ELISA



Clinical trials:

- PROGRESS (Perindopril Protection Against Recurrent Stroke Study)
 - Easily misunderstood as "progress" without clear contextual clues
- RALES (Randomized Aldactone Evaluation Study)
 - Easily misunderstood as "rales" = crackles or crepitant rales during pulmonary auscultation













Medical argot:

- Less common in written communications, but still a reality of the medical profession—ranging from the painfully derogatory to more humorous and colloquial usages
 - (EN) VIP = very intoxicated person
 - (EN) VCV = Very Close Veins = varicose veins
 - (EN) TEETH = tried everything else, try homeopathy
 - (FR) DCD (décedé) = dead
 - (FR) = PPH (ne passera pas l'hiver) = won't make it through winter
 - (PT) Síndrome JEC (Jesus Está Chamando = "Jesus is calling") = terminal patient

Terminology shifts between languages

Acronyms abandoned:

Some languages favor the use of terms derived from Latin over the acronyms for less technical terms, more common in English.

- CAD (coronary artery disease)
 → Cardiopathy
- CBC (complete blood count)
 → Hemogram
- SOB (shortness of breath)
 - → Dyspnea

Terminology shifts between languages

Different number of terms forming acronym:

- Anterior interventricular artery bypass (AIV bypass)
 - → (FR) le pontage artère interventriculaire antérieure (PIVA)
- Esophagogastroduodenoscopy (EGD)
 - → (FR) la fibroscopie œsogastro-duodénale (FOGD)
- Multiple Sclerosis (MS)
 - → (FR) la sclérose en plaques (SEP)
- Right bundle branch block (RBBB)
 - → (ES) el bloqueo de rama derecha (BRD)
- Urinary Tract Infection (UTI)
 - → (FR) l'infection urinaire (IU)



Inversions



- In Romance Languages, grammar dictates the order of nouns and adjectives, meaning that acronyms often contain the same letters, but they are not in the same order.
 - (EN) AIDS = SIDA (FR, ES, PT for Portugal, RO)
 - (EN) CBEU (cytobacteriological examination of urine) = EBCU (FR, ES, IT, PT, RO)
 - (EN) CVA (cerebrovascular accident) = ACV (FR, ES, IT, PT)
 - (EN) MI (mitral insufficiency) = IM (FR, ES, IT, PT, RO)
 - (EN) MRI = IRM (FR, ES, IT, PT)



English retained in foreign text

Acronyms identical across languages:

- DSM-IV = Diagnostic and Statistical Manual of Mental Disorders, manual published by the American Psychiatric Association (APA) including all currently recognized mental health disorders and whose codes correspond with those from the International Classification of Diseases (ICD)
- EOA = epithelioma
- HSM = hepatosplenomegaly
- PCB = placebo
- QRS complex
- TTT = treatment

British vs. American English



- British and American spelling differences at the beginning of words only complicate things.
 - Gastroesophageal Reflux Disease (GORD) → Gastroesophageal Reflux Disease (GERD)
 - Oestrogen-replacement therapy (ORT) → Estrogen-replacement therapy (ERT)
 - Lower Extremity Oedema (LEO) → Lower Extremity Edema (LEE)
 - Uncertain Aetiology (UA) → Uncertain Etiology (UE)
- Of course, there is also a shift in terminology:
 - Accident & Emergency (A&E) → Emergency Room (ER)
 Out-of-Area Treatments (OAT), Working-Time Directive (WTD), etc.
 Food Standards Agency (FSA) vs. Food and Drug Administration (FDA)

Use of symbols, shorthand, and designations

Common symbols used in medical reports:

- * = birth, † = death
- Λ = diastolic blood pressure, V = systolic pressure
- \bar{a} = before, \bar{p} = after
- ⊙ = start of operation, \otimes = end of operation
- Ψ = psychologist
- (±) = possibly significant
- ↓↓ = plantar response, ↑↑ = extensor response
- \bigcirc = murmur
- f3 = fluid ounce
- # = fracture
- ■ = pulse rate, = anesthesia



Translation strategies

Methodology:

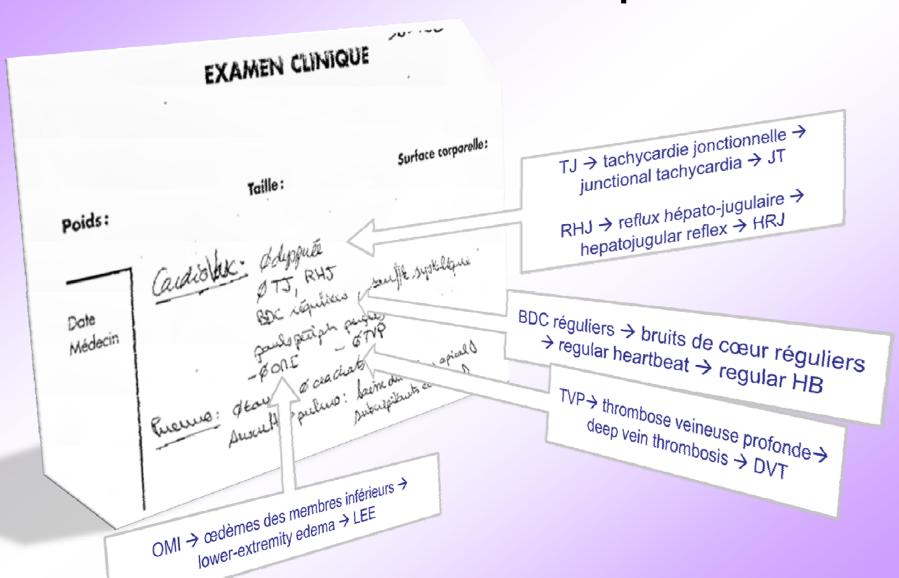
source > expanded source > expanded target > target acronym

Don't forget to consider:

- > The type of abbreviation
- > The context
- Whether the expanded form should be included



Practical example



Terminology

- Excel spreadsheet
- Word doc
- Terminology tools
- Suggestions?

A.S.A. 4	patient with incapacitating systemic dis-	BK	below knee
	ease that is constant threat to life	BKA	below knee amputation
ASAP	as soon as possible	bl cult	blood culture
ASCVD	atherosclerotic cardiovascular disease	bld.	blood
ASD	atrial septal defect	BI.T	bleeding time
ASHD	arteriosclerotic heart disease	BM	black male, bone marrow,
at. Flutter	atrial flutter		bowel movement
ATN	acute tubular necrosis	BMR	basal metabolic rate
ATNR	asymmetrical tonic neck reflex	body wt.	body weight
AU	both ears	BOMA	otitis media, both ears,
aud.	auditory		acute
Aur. Fib	auricular fibrillation	BOW	bag of water
A-V	arteriovenous	BP	blood pressure
AVF	arteriovenous fistula	BPD	bronchopulmonary dysplasia
AVR	aortic valve replacement	BPH	benign prostatic hypertrophy
A&W	alive and well	BPM	beats per minute
Ax.	axilla, axillary	Br.	breech presentation
A.Z.	Ascheim-Zondek test	BR	bedrest, bathroom
		brach.	brachial
В		BrBx.	breast biopsy
В.	bath	broncho	bronchoscopy
BA	barium	BRP	bathroom privileges
Bab.	Babinski sign	BS	blood sugar, bowel sounds
Ba.E	barium enema	B.S.	breath sounds
Bas.	basal.basilar	BSA	body surface area
baso	basophile	BSB	bedside bag
BBB	bundle branch block	BSC	bedside commode
BBT	basal body temperature	BSD	bedside drainage
BCA	basal cell atypia	BSO	bilateral salpingooophorectomy
BCD	basal cell dysplasia	BST	blood serologic test
BCE	basal cell epithelioma	BT	bleeding time
BCG	bacillus Calmette-Guerin	BTL	bilateral tubal ligation
500	vaccine (tuberculosis	BUN	blood urea nitrogen

Comprehensive online resources

Resource	Description	Web site
EMEA QRD	Frequently used non-standard abbreviations	http://www.emea.europa.eu/htms/human/qrd/docs/listnonstandard.pdf
LIVILA QIVD	Compilation on the use of approved terms.	http://www.emea.europa.eu/htms/human/qrd/docs/qrdterms.pdf
MediLexicon	Medical abbreviations dictionary (English with some French, German, and Spanish translations)	http://www.medilexicon.com/
The Free Medical Dictionary	Authoritative descriptions of medical conditions, medications, anatomical terms, etc.	http://medical- dictionary.thefreedictionary.com/
Medicalese	Terms that are not found in the standard medical references, such as clinical trial acronyms, herbal remedies, products available outside the U.S., discontinued drugs, and unapproved cancer therapies.	www.medicalese.org/
Lab Tests Online	Resources on non-commercial clinical lab tests.	http://www.labtestsonline.org/
MeSH	Medical Subject Headings	http://www.nlm.nih.gov/mesh/
Medical Glossary	General medical glossary	www.medicalglossary.org/
MedlinePlus Dictionary	National Library of Medicine Dictionary	http://www.nlm.nih.gov/medlineplus/mplusdict ionary.html
Medpedia	Collaborative sharing of medical knowledge, forum, Q&A, etc.	http://www.medpedia.com/
MT Desk	Medical transcriptionist resource	http://www.mtdesk.com/glossary/
RxList	Online drug index, including side effects, interactions, etc.	www.rxlist.com

Essential print resources

Resource

Davis, Neil M. *Medical Abbreviations: 15,000 Conveniences at the Expense of Communications and Safety,* 10th ed. Huntington Valley, PA: Davis Associates, 2001.

15,000 current acronyms, symbols, and other abbreviations with their 22,000 possible meanings. Also includes a cross-referenced list of 3,300 generic and brand drug names.

Donaldson, Ross. Tarascon Medical Translation Pocketbook, 1 Mul. ed. Boston: Jones and Bartlett: 2009.

This current, quick, and concise reference translates the most common phrases used in patient interviews in 15 languages.

Maxwell, Robert. Maxwell Quick Medical Reference, 5th ed. Maxwell Pub. Co., 2006.

Quick pocket reference including information on ACLS, EKGs, lab values, formulas and equations, orders and admission and progress notes, H&Ps. It also includes topics in OBGYN and developmental milestones in pediatrics. There is a great neurology section with charts, the neurological exam, dermatomes, and the mini-mental status.

Pandurean, Adrian. *Medical Abbreviations Pocket*, 2nd ed. Hermosa Beach: Börm Bruckmeier, 2002.

Medical Abbreviations pocket is divided into two sections: the first part lists the abbreviations and acronyms alphabetically, while the second one is an index of the expanded terms for reverse searching.

Sabatine, Marc S. *Pocket Medicine: The Massachusetts General Hospital Handbook of Internal Medicine*, 3rd ed. Philadelphia: Wolters Kluwer, 2008.

A comprehensive, but succinct pocket-sized loose-leaf reference that provides key clinical information about common problems in cardiology, pulmonology, gastroenterology, nephrology, hematology-oncology, infectious diseases, endocrinology, rheumatology, and neurology. It includes useful tables, diagrams, and useful cross-referencing and abbreviations sections.

Stanaszek, Mary J. The Inverted Medical Dictionary. Lancaster, PA: Technomic, 1991.

Eponyms, common medical abbreviations, drug and chemical abbreviations, terms used in prescription writing, tables of weights and measures and anatomical illustrations. Also lists terms alphabetically by layman's term/description with corresponding medical term.













Questions

