

ABBREVIATIONS, ACRONYMS AND SYMBOLS IN GENERAL PRACTICE

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INTRODUCTION

Medical language, often seems mystifying and encrypted to the lay person, is a professional language created and evolved to allow effective and meaningful communication among healthcare workers. Daunting it may seem at first, as any medical student may attest to, the language makes sense once we understand how the words and terms are derived.

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Main Elements Of A Medical Term

There are three main elements that are used to form a medical term or word. They are the word roots, suffixes and prefixes. Word roots in medical terminology are usually originated from Greek or Latin terms and usually refer to a part of the anatomy; **acr** refers to the extremities, **cardi** to heart and **derm** to skin. A suffix is one added to the end of a word root to form a derivative; **-ectomy** means excision, **-plegia**, paralysis and **-megaly**, enlargement. A prefix is a part-word added to the beginning of a word to alter its meaning; **brady** means slow, **miro**, small and **poly**, multiple. With this knowledge, the medical language is at once comprehensible and decipherable. However, like any language, medical writing does not remain static but continues to develop and expand out of expediency.

Short Forms

One aspect of medical terminology that has become commonplace in communication among healthcare workers is the use of short forms. These are the abbreviations, acronyms and symbols that we encounter in medical records, journals and other medical publications. They are invented, accidentally discovered or evolved to save space and time and to expedite communication.

An **abbreviation** is the shortened form of a written word or phrase used in place of the whole. Abbreviations sometimes represents Latin or Greek words (**noct**), the first letter of several words (**HIV**) or the first letters of just one word (**abd**). An **acronym** is a pronounceable abbreviation formed from the initial letter or letters of each of the major parts of a compound term. Examples of internationally recognised medical acronyms are **SARS** (Severe Acute Respiratory Syndrome), **AIDS** (Acquired Immunodeficiency Syndrome) and **NSAIDS** (Non-Steroidal Anti-Inflammatory Drugs).

An area where acronyms are becoming popular is in naming

Clinical Trials or Studies^{1,2}. Recent examples are **ASCOT** (Anglo-Scandinavia Cardiac Outcome Trial) and **ALLHAT** (Antihypertensive and Lipid Lowering treatment to prevent Heart Attack Trial). These catchy names, no doubt, serve as aide-memoire for the reader.

Symbols, in medical terminology, usually refer to printed or written signs that immediately convey a meaning. These modern hieroglyphs are widespread in medical communication and an excellent example is the depiction of the family tree. The authors of this paper set out to survey the use of medical shorthand in general practice and to compile a list of commonly encountered abbreviations, acronyms and symbols in this field of medicine.

MATERIALS AND METHODS

The first part of the survey was conducted on ten established General Practitioners of at least five years of experience. Fifty random patient records per clinic were reviewed and all the abbreviated terms and symbols were noted down. The doctor responsible was interviewed and his interpretation of each short form was recorded. The list of abbreviations and symbols together with their meanings from this group of doctors was collated.

The second part of the survey involved a different group of ten General Practitioners of similar experience. They were provided with the aforementioned list but without the meanings and the respondents were asked to provide their personal interpretations without referring to any dictionaries. The final list of abbreviations, acronyms and symbols and their corresponding interpretations that were common to both groups was then compiled.

A further analysis was made to ascertain whether the same meanings to these short forms were found in the Royal College of General Physicians database using its Acronym Finder³.

RESULTS

The list of abbreviations and symbols and their interpretations compiled is presented in Table 1. There were 177 items found. Each abbreviation or symbol was entered into the RCGP Acronym Finder to find out if the same definition or meaning as that given by the General Practitioners surveyed could be generated. If the same interpretation was not obtained, the words "Not Found" were entered into the last column. If the same interpretation was obtained albeit being just one of several alternative interpretations available for that given abbreviation/symbol in the search, the phrase "Same meaning available" was entered.

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DISCUSSION

The random sampling of just twenty General Practitioners yielded quite a substantial list of abbreviations and symbols that are familiar to the members of the two groups surveyed. This is not surprising given the use of short forms in medical communication is prevalent throughout the world. This is evidenced by the proliferation of compilations and glossaries on abbreviations being published and not forgetting those that are available freely over the internet^{4,5}. However, many medical associations, universities and health related organisations have highlighted their ambivalence towards this trend.

Notwithstanding the usefulness of shorthand in saving time and space, the peril of abbreviations that are ambiguous, giving room for misinterpretation, cannot be ignored. This is especially felt in the area of prescription of drugs as was pinpointed by the The United States Pharmacopeia (USP), the official public standards-setting authority for all prescriptions, over-the-counter medicines, health supplements and other healthcare products made and sold in the United States. In its Quality Review (No.80, Issued JUL 2004), besides other matters, a list of Potentially Dangerous Abbreviations to be avoided was mentioned for emphasis⁶. The position of USP on short forms is that abbreviations, acronyms and symbols used throughout an organization should be standardized and readily available and a list of those that should not be used should also be available.

The gravity of using dubious and non-standardized abbreviations in prescription resulting in serious medical errors was similarly sounded by local doctors. (The Prescribing Pattern of Outpatient Polyclinic Doctors, Drs KHY Lim, KB Yap, Singapore Medical Journal 1999 Vol. 40) Acknowledging that the use of abbreviations is entrenched in medical language despite the potential risk, hospitals, pharmaceuticals, medical and dental institutions the world over have published approved or accepted lists of abbreviations and symbols for limited use within each organization as a plausible solution and compromise^{7,8,9}.

The use of abbreviations, acronyms and symbols in medical vocabulary is a two-edged sword. Regardless of opinion, these short forms are here to stay. Thus, the challenge is to find a way to incorporate them without compromising quality of care and safety of patients. The medico-legal view on the use of abbreviations in medical records is another important consideration.

In an article entitled Making and Keeping Medical Records published in the Medical Protection Society Casebook (International Issue 13, JUL 2000), the following points on the use of abbreviations merit reiterating:

- κ Abbreviations must be universally understandable. Every specialty develops its own vocabulary of abbreviations, some of which may be a mystery to those in other fields. If in doubt, spell it out.

- κ They must not be open to misunderstanding. Some have more than one meaning.
- κ They must be written with care. A slip of the pen can easily change the meaning of an abbreviation.
- κ Don't use abbreviations as coded messages to express exasperations, sarcasm or your poor opinion of the patient. Don't write DNR (do not resuscitate). If such a far-reaching decision has been made, a full record setting out what measures should or should not be taken should appear in a prominent position within the medical record, clearly signed and dated by the responsible consultant.

In Australia, the new Medical Practice Regulation 1998, which came into effect 1 September 1998, provides clear rules regarding the making and keeping of medical records¹⁰. The regulation states that, among other issues, abbreviations and short hand expressions should be avoided unless they are recognized in the medical profession or medical community. Noting how pervasive the use of abbreviations and symbols are and appreciating the potential problems of miscommunication, the authors of this paper believe that perhaps it's time that the local medical community decides on a reference glossary.

CONCLUSIONS

A total of 177 abbreviations and symbols were found in this study. There is a case for a standardized use of abbreviations.

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Table 1. Abbreviations and Local Interpretations

Abbreviations		Local Interpretations	RCGP Acronym Finder
1.	1/7, 1/52, 1/12	1 day, 1week, 1 month	Not Found
2.	2°	secondary	Not Found
3.	2° infection	secondary infection	Not Found
4.	5th ICS	fifth intercostal space	Same meaning available
5.	9/52 A	9 weeks amenorrhoea	Not Found
6.	A/E equal	Air Entry equal	Not Found
7.	A/E dept.	Accident and Emergency department	Same meaning available but written as A&E, not A/E
8.	a/w	associated with	Not Found
9.	Abd.	Abdomen	Same meaning available
10.	Abdm.	Abdomen	Not Found
11.	ACL	Anterior Cruciate Ligament	Same meaning available
12.	Afeb.	afebrile	Same meaning available
13.	Alert, C+R	Alert, Conscious and Rational	Not Found
14.	appt.	appointment	Same meaning available
15.	auroscopy EAC N	auroscopy External Auditory Canal Normal	Same meaning available
16.	b. asthma	bronchial asthma	Not Found
17.	Ba. Meal	Barium Meal	Not Found
18.	bd, tds, qds	2 times a day, 3 times a day, 4 times a day	Same meanings found
19.	BD,TDS, QDS	(as above)	Same meanings found
20.	BMI	Body Mass Index	Same meaning available
21.	BMX	Barium Meal	Not Found
22.	BNO	Bowels Not Open	Same meaning available
23.	BO normal	Bowel movement normal	Same meaning available
24.	BP	Blood Pressure	Same meaning available
25.	BS active	Bowel Sound active	Not Found
26.	c/o	complaint of	Same meaning available
27.	Cervical LN	Cervical Lymph Nodes	Same meaning available
28.	chol.	cholesterol	Same meaning found
29.	cm	tomorrow	Same meaning found but written as c.m. not cm
30.	CN	Cranial Nerves	Same meaning available
31.	CNS	Central Nervous System	Same meaning available
32.	COAD	Chronic Obstructive Airway	Same meaning available
33.	COLD	Chronic Obstructive Lung	Same meaning available
34.	Colour D	Change of colour	Not Found
35.	Cont	continue	Same meaning available
36.	COPD	Chronic Obstructive Pulmonary Disease	Same meaning available
37.	Cough R/N ST	Cough Runny Nose Sorethroat	Not Found
38.	CVA	Cerebrovascular Accident	Same meaning available
39.	Cx	cervical	Not Found
40.	D1 menses	Day 1 of menses	Not Found
41.	D2 of cycle	Day 2 of cycle	Not Found
42.	Diarr	diarrhoea	Not Found
43.	DM	Diabetes Mellitus	Same meaning available

Abbreviations	Local Interpretations	RCGP Acronym Finder
44. DUB	Dysfunctional Uterine Bleeding	Same meaning available
45. Dx	diagnosis	Same meaning available
46. ECG	electrocardiogram	Same meaning available
47. ENT	Ear Nose Throat	Same meaning available
48. Excuse P/E	Excuse Physical Exercise	Same meaning, Education in place of Exercise
49. Exp. rhonchi	Expiratory rhonchi	Same meaning available
50. Ext.	external	Same meaning available
51. F/H	Family History	Not Found
52. F/U	Follow Up	Same meaning available
53. FB	Foreign Body	Same meaning available
54. FBC	Full Blood Count	Same meaning available
55. Fever°	No fever	Not Found
56. Fhx	Family history	Same meaning available
57. Freq.	frequency	Same meaning available
58. FROM	Full Range Of Movement	Same meaning available
59. GC	General Condition comfortable	Same meaning available comfortable
60. G1P0	primigravida	Same meaning available
61. GE	Gastroenteritis	Same meaning available
62. GP	General Practitioner	Same meaning available
63. H/L	Heart and Lungs	Not Found
64. h/o	history of	Same meaning found among others
65. H/O	(as above)	(as above)
66. HI	Head Injury	Same meaning found among others
67. Ht	Height	Same meaning found among others
68. hx	history	Same meaning found among others
69. Hx	(as above)	(as above)
70. Hypt	Hypertension	Not Found
71. hypt	(as above)	Not Found
72. I & D under LA	Incision and Drainage under Local Anaesthesia	Same meaning found
73. I/M	Intramuscular	Same meaning found but written as IM, not I/M
74. Inj.	Injection	Same meaning available
75. Int.	Internal	Same meaning available
76. Inx.	Investigation	Not Found
77. Jts	Joints	Not Found
78. JVP	Jugular Venous Pressure	Same meaning available
79. KIV	Keep In View	Not Found
80. L	Left	Same meaning available
81. L4L5	4th and 5th Lumbar vertebrae	Same meaning available
82. L5S1	5th Lumbar vertebra and 1st	Same meaning available
83. Lat. aspect	Lateral aspect	Same meaning available
84. LBP	Low Back Pain	Same meaning available
85. LL	Lower Limb	Same meaning available
86. LMP	Last Menstrual Periods	Same meaning available
87. LN	Lymph Node	Same meaning available
88. LOC	Loss Of Consciousness	Same meaning available

Abbreviations	Local Interpretations	RCGP Acronym Finder
89. LOKO	Liver and Kidneys not palpable	Not Found
90. LOKOSO	Liver, Kidneys and Spleen not palpable	Not Found
91. LOW/LOA	Loss Of Weight/Loss Of Appetite	Not Found
92. Lt	Left	Same meaning available
93. M/S chest pain	Musculoskeletal chest pain	Not Found
94. M/S M/R	Mitral Stenosis Mitral Regurgitation	Not Found
95. mass°	No mass	Not Found
96. MC	Medical Certificate	Not Found
97. MMR	Mumps Measles Rubella	Same meaning available
98. Multip.	Multiparous	Same meaning available
99. N	Normal	Same meaning available
100. No D	No change	Not Found
101. NAD	No Abnormality Detected	Same meaning available
102. NDA	No Drug Allergy	Not Found
103. NKDA	No Known Drug Allergy	Same meaning available
104. NVD	Normal Vaginal Delivery	Same meaning available
105. O&G	Obstetrics and Gynaecology	Same meaning found
106. O/E	On Examination	Not Found
107. OA	Osteoarthritis	Same meaning available
108. OC	Oral Contraceptives	Same meaning available
109. occ.	occasional	Not Found
110. OGD	esophagogastroduodenoscopy	Same meaning available
111. om	Every morning	Same meaning available
112. on	Every night	Same meaning available
113. OPD	Outpatient Dispensary	Same meaning available
114. OPS	Polyclinics (outpatient services)	Same meaning available
115. P/H	Past History	Same meaning found but written as PH
116. P/hx	(as above)	Same meaning found but written as Phx
117. PEARL	Pupils Equal and Reactive to Light	Same meaning available
118. PERL	(as above)	Same meaning available
119. physioRx	physiotherapy	Not Found
120. PND	a) Paroxysmal Nocturnal Dyspnoea	a) Same meaning available
	b) Post Nasal Drip	b) Same meaning available
121. PR	a) Pulse Rate	Same meaning available
122. PR	b) Per Rectal	Same meaning available
123. PRN	As and when necessary	Same meaning available
124. pt	patient	Same meaning available
125. PU	Pass Urine	Same meaning available
126. R	Right	Same meaning available
127. Rt	(as above)	Same meaning available
128. R/N	Runny Nose	Not Found
129. R/V	Review	Not Found
130. RBS	Random Blood Sugar	Same meaning available
131. RBSL	Random Blood Sugar Level	Not Found
132. Reflex+/-	Tendon Reflex present bilaterally	Not Found

Abbreviations	Local Interpretations	RCGP Acronym Finder
133. RICE	Rest, Ice, Compression, Elevation	Same meaning available
134. RIF	Right Iliac Fossa	Same meaning available
135. RN	Runny Nose	Not Found
136. Rpt.	Repeat	Not Found
137. RTA	Road Traffic Accident	Same meaning available
138. Rx	Treatment	Same meaning available
139. S/C	Subcutaneous	Same meaning available
140. S/T	Sorethroat	Not Found
141. S1S2	Dual Heart Sounds	Not Found
142. sl.	slight	Not Found
143. SLR	Straight Leg Raising	Same meaning available
144. SLR 90/90	Straight Leg Raising 90° both legs	Not Found
145. SOB	Shortness Of Breath	Same meaning available
146. ST	Sorethroat	Not Found
147. supp.	suppository	Same meaning available
148. SVT	Supraventricular Tachycardia	Same meaning available
149. syr.	syrup	Same meaning available
150. T	Temperature	Same meaning available
151. T°	(as above)	Not Found
152. TCU	To see again or to follow-up with appointment	Not Found
153. Temp.	Temperature	Same meaning available
154. Throat inj.	Throat injected	Same meaning available
155. TM	Tympanic Membrane	Same meaning available
156. Tx	Treatment	Same meaning available
157. U/S	Ultrasound	Same meaning available
158. UL	Upper Limb	Same meaning available
159. Upper GI	Upper Gastrointestinal Tract	Same meaning available
160. Urine c/s	Urine culture and sensitivity	Same meaning available
161. Urine HCG	Urine Human Chorionic	Same meaning available
162. Urine preg.	Urine pregnancy test	Same meaning available
163. URTI	Upper Respiratory Tract Infection	Same meaning available
164. Uterus np	Uterus not palpable	Not Found
165. VA	Visual Acuity	Same meaning available
166. VMR	Vasomotor Rhinitis	Same meaning available
167. Wt.	Weight	Same meaning available
168. +/-+/+++	mild/moderate/severe	Not Found
169. -ve	negative	Not Found
170. +ve	positive	Not Found
171. ↑/↑	Raised or enlarged bilaterally	Not Found
172. ↓/↓	Decreased or downgoing or reduced bilaterally	Not Found
173. Δ	a) Change	a) Not Found
	b) diagnosis	b) Not Found
174. Δx	Diagnosis	Not Found
175. JVP%	JVP not raised	Not Found
178. +	Present or positive	Not Found