

## PERSPECTIVE

## Eradicating Jargon-Oblivion—A Proposed Classification System of Medical Jargon



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From the standpoint of medicine as art for the prevention and cure of disease, the man who translates the hieroglyphics of science into the plain language of healing is certainly the most useful.

-Sir William Osler

I never write metropolis for seven cents because I can get the same price for city.

-Mark Twain

## INTRODUCTION

None of us went into medicine to confuse people. Yet, studies on our use of jargon—the technical terminology of a given group—reveal that we consistently do precisely that. While healthcare providers overwhelmingly agree that using plain language is essential for effective communication, it has been shown that we use terminology not understood by our patients as often as seventy times per encounter [1–6]. Even more problematic is the fact that, despite this tendency to confuse, we rate ourselves highly in our ability to speak plainly with patients and consistently overestimate their ability to define the terms we use [3, 4, 7].

There are a number of reasons we may use jargon with our patients, ranging from an innocent misjudgment of patients' level of understanding to a more pretentious desire to sound knowledgeable on a subject. We believe our jargon usage is likely the result of the progression through the developmental communication milestones inherent to our training. As we navigate through medical school, we start to learn another

language—both the formal disease names and the informal shortcut slang. Under the guise of promoting efficiency and professionalism, we are encouraged to demonstrate our growing mastery of this language when we present our patients, discuss our plans, write our notes, and call consultants. Eventually, we may simply forget there was a time when we did not know the meaning of language we now use with ease. Medical English becomes our primary language and we forget our mother tongues.

Clearly, it is not effective to tell providers to stop using jargon if we are not even aware we are using it in the first place. We introduce the term “jargon-oblivion” to describe this discrepancy between our self-rated skill in clear communication and our patients' ability to understand the terms we use. In order to address this disconnect, we must first identify the problem. As a step toward doing so, we propose a classification system for common types of jargon in Table 1 and in detail below. This classification is based on a review of the literature and our work trying to eradicate inappropriate jargon from our own practice. Our goal is to provide a framework for medical professionals to use as a tool to diagnose and address the epidemic of iatrogenic confusion perpetuated by our jargon-oblivion.

## SEVEN CATEGORIES OF MEDICAL JARGON

### Technical Terminology—Classic Jargon

The most obvious category of jargon is technical terminology, terms we were unlikely to know before our medical training.

Your jaundice, which is due to elevated bilirubin, could be caused by cholecystitis. We are waiting for the radiologist to read the abdominal ultrasound to see if you may need a cholecystectomy.

Technical terminology includes the names of diseases, symptoms, procedures, labs, and imaging studies that are well known within the field of medicine but lack universally understood meanings outside of this arena. Many times, for example, even our job titles fall into this category. In one study, less than half of the patients being seen in a breast clinic knew what an oncologist was, and only one in four could

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**Table 1 Jargon Classification Framework**

Technical terminology	Words likely learned in medical school including disease names, symptoms, anatomy, procedures, treatments, and laboratory tests	Disease names Myocardial infarction Bronchiolitis Symptoms Dysphagia Ataxia Syncope Anatomy Adenoids Prostate Procedures/treatments Coronary artery bypass graft Upper gastrointestinal endoscopy Tests Bilirubin Urinalysis Acronyms for technical terminology CABG CBC UA Lost in translation acronyms NPO (for nothing by mouth) EKG (for electroCardiogram) LFTs (for liver function tests, which actually do not indicate liver function) Abbreviations Cath Coags Endo Disease names Sepsis Ulcer Anatomy Scapula Lymph nodes Treatments/tests Steroids Cultures Descriptions Inflammation Mental status changes Acute vs. chronic Sexually active Vital signs/terminology Febrile Saturations Blood pressure Accidental antonyms Negative (negative blood culture) Positive (positive nodes) Progressing (tumor is progressing) Different meanings in medicine Tenderness (Do you have any tenderness?) Appreciate (I do not appreciate your murmur) Focus/focal (So the primary focus of your pain is your knee?) Impressive (The rash is not impressive to me) Upper/lower extremity (arm/leg) Pruritus (itching) Ambulating (walking)
Alphabet soup	Acronyms and abbreviations	
Medical vernacular	Words that may be familiar to most but are not universally known or understood	
Medicalized English	Words which are known but have a different meaning in the context of medicine than in everyday use	
Unnecessary synonyms	Universally understood terms we overcomplicate by replacing known terms	

(continued on next page)

**Table 1. (continued)**

	with unknown synonyms	Oral intake (eating and drinking) Erythema (redness) Ecchymosis (bruising) Fracture (break) Cautious coding Spot on the liver Seedlings Shadows on the X-ray Death avoidance Passed On Expired Coded Waste management Voiding Stooling
Euphemisms	Attempts to soften language we may find difficult to say, but which provide less clarity	Loaded lingo Deny (drug use, sexual activity) Chief complaint Failed treatment Internal codenames Rock Bounce-back Flea GOMER
Judgmental jargon	Phrases which may reflect bias or appear derogatory	

define a radiologist [8]. Studies that demonstrate the need for providers to use plain language tend to highlight this type of jargon, but using this description alone excludes a number of key areas of misunderstanding [2-4].

### Alphabet Soup—Acronyms and Abbreviations

A sub-category of technical terminology is the use of acronyms or abbreviations.

Your EKG was concerning for an MI, but before you go to the cath lab we'll get a CBC and coags and make you NPO.

At times, providers may try to mitigate abbreviations by immediately adding the spelled out terminology. However, qualifying an abbreviation with the full term may merely trade one type of jargon for another. Clarifying that an MI means myocardial infarction, for example, does little to improve understanding. To add to the confusion, the full term in English may not reflect the acronym's letters. The abbreviation used for electrocardiogram maintains the Germanic K, and NPO reflects the Latin origin of "nothing by mouth." These substitutions make it even more difficult for patients to decipher their meaning, not to mention the fact that the phrase "nothing by mouth" is an unduly complicated way to tell someone they should not eat or drink. Additionally, many abbreviations have multiple meanings, which can lead to confusion. For example, ASD may mean atrial septal defect to a cardiologist or autism spectrum disorder to a developmental pediatrician.

## Medical Vernacular—Familiar but not Known

Many medical terms may be familiar from outside the clinical setting. It is a false assumption, however, to equate familiarity with understanding. Some terms may be common on medical television shows (e.g., afebrile, coding, electrolytes, metastasis, blood culture) or may have been covered in a high school biology class (gallbladder, immune system, inflammation), but this does not mean patients truly understand them. For example, only half of cancer patients in one study knew what the word remission meant, and less than half could point to the general vicinity of the liver [7]. We must not equate our patients' recognition of the terms we use with their understanding. Asking ourselves the rhetorical question, "Did I know this before my medical training," or asking a non-medical friend to define the words in question can be a helpful tool for self-auditing of this type of jargon usage.

## Medicalized English—Known but Different Meaning

I don't appreciate any focal tenderness in your abdomen and the CT scan was negative.

There are several words and phrases used in medicine that are borrowed from everyday language but take on a different meaning in the medical world. Tenderness in medicine (hurts to the touch) is different than every day usage (gentleness, kindness). When providers do not appreciate something, it means they did not find it on their exam; when a patient does not appreciate something, it means they are offended by it or dislike it. This can provide confusion for patients when, for example, they hear us say we "don't appreciate a murmur on their exam."

Occasionally, these words may be accidental antonyms. In any other context, for example, the adjective negative is a bad thing: negative feedback at work stings, and we avoid restaurants with negative reviews. But in the medical context, bloodwork being negative is generally a good thing, and positive cultures are generally considered a serious problem. Fewer than half of cancer patients understood that "your lymph nodes are positive" was a bad thing, and only 52% of patients understood that "the tumor is progressing" was bad news [7]. Progress, after all, is generally good. Recognizing when words have a different meaning in a medical context is an essential part of working to reduce jargon usage, and is more complex than simply avoiding medical terminology.

## Unnecessary Synonyms—Exchanging Unknown for Known

Doctor: You have a fracture of your left upper extremity.  
Patient: Oh, thank goodness, I was worried I'd broken my arm.

While it can be difficult to avoid jargon usage when there is no readily available phrase to exchange for the medical term, at times we overly complicate things by using medical synonyms for simple, universally understood terms. Arms become upper extremities, redness becomes erythema, walking becomes ambulating, and the right eye is abbreviated as OD. Jargon theoretically exists to serve as a shortcut within a community, but replacing words we all already know with new ones fails to meet this conceptual metric and adds unnecessary confusion. In some cases, our patients will find differences in these unnecessary synonyms when none exists. For example, in one study of patients in an orthopedic clinic, eight in ten patients thought there was a difference between a fracture and a break [9].

## Euphemisms—Attempts to Soften the Blow

One way we may attempt to minimize discomfort is to use euphemisms, replacing words with ones we feel are less distasteful or difficult to hear [10]. Compared with other categories of jargon, these substitutions are usually intentional. However, asking if someone has "moved their bowels" or "voided" rather than using plain language risks introducing confusion. Additionally, we may opt to say "expired" because we find it difficult to say "died," describe a chest mass as a "spot on the X-ray" or a "shadow," or refer to bacteria as "bugs." These softening phrases are easier for us to say, but may make it more difficult for patients to understand the gravity of a situation. For example, few patients are able to decode cancer euphemisms such as spots or seedlings [7]. In fact, one study showed that patients who were told they had a "spot" when learning of a new pulmonary nodule had significant distress for months [11]. In this case, the euphemisms aiming to ease anxiety had the opposite effect.

## Judgmental Jargon—Loaded or Biased Terms

Finally, patients may perceive some medicalized English as derogatory despite there being no such intent. Describing a patient's presenting symptom as their "chief complaint," noting "failed outpatient treatment," or reporting that they "deny drinking alcohol" may convey frustration, judgment, or distrust [12]. In addition to these likely unintended meanings, there are loaded terms used casually among colleagues that would be difficult to defend if inadvertently heard, such as calling a long-hospitalized patient a "rock." Many of these types of jargon are learned as rites of passage, or initiatory jargon, but on careful review deserve consideration of being purged from our vocabularies [10].

## DISCUSSION

Much of the work in the field of understanding jargon usage has either focused on controlled settings where scenarios with standardized patients were recorded and transcribed [1–3, 13],

or has relied on identifying discrepancies of perceived understanding of common medical phrases between providers and patients through surveys [4, 7, 9, 14–16]. In a controlled environment, Farrell et al. showed that providers were able to improve their jargon usage in recorded standardized encounters when presented with a jargon scorecard [17]. In their study, providers were given a written report summarizing their jargon usage from a recorded phone call with a standardized patient on week prior, and those who reviewed this report card had improvement in their scores on subsequent calls. While these controlled interventions may be beneficial, it can be challenging to create the infrastructure to support this type of targeted intervention. In our institution, we have begun to provide an overview of this classification system of the seven types of jargon to all learners (medical students as part of the intersession curriculum between their preclinical and clinical years, pediatric residents as part of their block education series, and faculty through grand rounds and faculty development sessions). We have also begun piloting having medical students use the classification scheme to provide real-time audits of inpatient rounds and provide feedback on jargon usage at the bedside. We have consistently found that providers are surprised by how much jargon they use and are eager to refine their vocabularies to be more understood by their patients.

## CONCLUSION

If we wish to provide safe, effective, patient-centered care, we must improve our ability to communicate with patients in ways that they find meaningful. Targeting our own jargon-oblivion so that we can identify and minimize inappropriate jargon use is a key factor in this improvement. Our hope is that our classification framework can be used as a basis for periodic self- or peer-audits, allowing providers to reflect on the types of language we use with patients. Additional research and self-reflection will help us slowly emerge from our jargon-oblivion with an understanding that even if we are the smartest providers in the world—making complex diagnoses with ease and prescribing brilliant treatment plans—if our patients cannot understand the meaning of what we are saying, our efforts themselves become meaningless.

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### Compliance with Ethical Standards:

**Conflict of Interest:** *The authors declare that they do not have a conflict of interest.*

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