Eliminating jargon, or medicalese, from scientific writing

Jargon is defined as "nonsensical, incoherent, or meaningless talk" and as "the specialized or technical language of a trade" (1). In some cases the word in question has a good etymologic basis and therefore may be acceptable in formal reports; however, if a word or phrase represents slang, is unclear to readers, or is used contrary to its precise definition, it should be changed to something clearer and less ambiguous. Following are several examples of medicalese (2–4).

DRUGS AND RELATED TOPICS

In describing drugs, the terms intravenous, oral, and parenteral are acceptable when they refer to the route of administration; these terms should not be used to modify the drugs themselves. Thus, "Intravenously injected penicillin was given" would be correct whereas "Intravenous penicillin was given" would be incorrect.

Dose and dosage are often used interchangeably but their meanings are distinct. A dose is the amount of medicine administered at one time, or the total dose administered. A dosage is the regulated amount of medicine administered per unit of time. The following usages would be correct: She was given a dose of 5 mg. She was given a dosage of 5 mg three times a day.

It is incorrect to say that a patient receives anesthesia because anesthesia is the state of being without pain. An anesthetic or anesthetic substance is what is given to patients to induce anesthesia.

PATIENTS AND DISEASE

The expression "patients were diagnosed" is commonly used; however, patients are not diagnosed—conditions, diseases, and disorders are diagnosed. Thus, cancer can be diagnosed in a patient but it would be incorrect to say that a patient was diagnosed with cancer.

The following expressions should be avoided: patients on, placed on, discharged on, or started on a drug or diet. It is more accurate to say that a patient received a drug, a subject consumed a diet, a drug therapy was started, or a patient was discharged on a regimen of a particular drug.

Rather than referring to patients by their diseases, eg, as mild hypertensives or idiopathic hypercalciurics, it is preferable to say "patients with mild hypertension" or "patients with idiopathic hypercalciuria."

It is incorrect to say that patients are followed when they are followed up or observed. Follow up is not hyphenated when used as a verb but is hyphenated (follow-up) when used as a noun or adjective. Note that it is acceptable to say that cases are followed because cases are instances of disease, not patients. Further, cases are evaluated (not examined) and patients are examined (not evaluated).

The terms insulin-dependent and non-insulin-dependent diabetes mellitus are preferred to Type I and Type II diabetes, respectively, because they are more descriptive of the disease.

OTHER

Laboratory tests and examinations cannot be normal or abnormal; the findings or results of these tests are either normal or abnormal. For example, it would be jargonistic to say that the cytology was normal—the cytologic findings were normal.

In medical research significant has a defined statistical meaning and should not be used to mean important or major. A significant finding is one that has a probability of happening by chance, often one-twentieth of a chance, expressed as $P < 0.05$.

Pathology and malignancy are often misused. Pathology is the study and description of disease, abnormalities, or lesions, not the disease, abnormalities, or lesions themselves. Thus, it is incorrect to say "no pathology was found" but correct to say "no pathologic condition was found." Malignancy should not be used as a synonym for cancer, neoplasia, or tumor.

Fat mimic and fat mimetic should not be used interchangeably. Mimic is a noun and mimetic is an adjective. Therefore, a fat mimic is the substance (eg, olestra) that is replacing fat; olestra is a mimetic substance.

In animal studies in which there is food deprivation, it is more precise to say that food was withheld from the animals rather than that the animals were fasted because fasting implies a conscious choice to abstain from food. Starved denotes a different physiologic state and is not a synonym for fasting.

The expression "subjects were randomized" is not accurate because subjects were not "made random in arrangement," which is the definition of "randomized." The expression "subjects were randomly assigned" is preferred.

A control is "a standard of comparison for checking or verifying the results of an experiment" (1). It is appropriate to use the term control to describe a type of experiment, chemical standards, or even groups of animals. However, this dehumanizing term should not be applied, by itself, to groups of men and women; control subjects is preferred.

CONCLUSION

There are times when jargon is acceptable, as long as the term is defined at its first use. For example, spiked sample is jargon but it is all right to use this term if it is first defined as the sample to which a radioactive element has been added. However, many terms that fit the description of medicalese are shortcuts that are
not acceptable in formal scientific writing. We hope you will find
these examples of common misusages useful.

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REFERENCES


