



Abbreviations Toolkit  
Section 1: Making the Case

## High Risk Situations: Medication Names

Medication prescribing has become more complex with the influx of new medications with names that sound similar to other medications, and the development of new routes or a change in duration of action for medications already on the market.

### Abbreviated medication names and acronyms

Prescriptions written with incomplete or abbreviated medication names are a significant concern. A review of outpatient prescriptions found that abbreviated medication names accounted for 27 per cent of abbreviations used.<sup>65</sup> As with other abbreviations, truncated medication names and local acronyms used in one area of practice are often not used or understood by others within the same facility.

Medication names can be altered by:

- Only using the stem of the medication name, such as nitro for nitroglycerin or morph for morphine.
- Use of an acronym representing a single medication or a combination of drugs used in a protocol.

**Table 1. Examples of medication errors resulting from abbreviated medication names**

Abbreviation	Interpretation	Consequence	Recommendation
DTP = -Demerol (meperidine) -Thorazine (chlorpromazine) -Phenergan (promethazine) used for sedation	Vaccine containing: -Diphtheria -Tetanus -Pertussis	Child was vaccinated instead of receiving sedation	Write out the full medication name
HCT250= for hydrocortisone 250 mg	Mistaken for HCTZ50 (hydrochlorothiazide 50 mg)	Hydrochlorothiazide 50 mg was given	Write out the full medication name
Nitro IV drip (to prescribe Nitroglycerin)	Mistaken for nitroprusside IV drip	Wrong medication administered	Write out full medication name

### Medication name suffixes

An abbreviation (e.g., CR, SR, ER, IR) is commonly added to medication trade names to differentiate between formulations in a product line that have different rates of medication release or duration of action. Unfortunately, these suffixes lack standardization — one suffix may have multiple meanings and several may describe a similar pattern of medication release. Overall, healthcare professionals lack knowledge about the meaning of these abbreviations. In

one study, 28 per cent of nurses could correctly identify four medication name suffixes (CR, SR, ER and IR) and 39 per cent could indicate the correct length of action expected from each.<sup>66</sup> Formulation confusion related to medication name suffixes is a known contributing factor to medication errors.<sup>49</sup> To improve safety with these products, the terms 'short-acting' and 'long-acting' should be used on medication orders, medication labels, and medication administration records rather than using a suffix to indicate the desired duration of action.<sup>66</sup> Other patient safety agencies have developed recommendations and strategies to manage the confusion with medication suffixes.<sup>67,68,69</sup>

Several patient safety organizations have focused on the issue of unsafe medication names, however the regulations related to the naming of medications have not significantly changed.<sup>68</sup> The International Medication Safety Network has called for a collaborative global approach to address the issue of unsafe naming, labelling, and packaging of medicines.<sup>70</sup> They recommend that national regulations should be strengthened and human factors principles be addressed with this safety issue.

### Recommendations for communicating medication names

- Eliminate short forms of medication names from medication orders and clinical notes. Write out medication names in full.
- Do not use acronyms. If appropriate, develop medication order sets in either paper or electronic format to assist with the ordering of complicated protocols or combinations of medications.
- Create and post a list of commonly used medications with their suffixes and the usual duration of action or interval of use for each.
- When giving a verbal order for an extended release formulation, use the full words to describe the desired effect rather than a suffix. For example, use 'extended release', not ER.

### References

Note: Taken from the complete reference list for the Abbreviations Toolkit

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