

Practice sting Spacing matters

This Practice sting is especially relevant to prescribers, pharmacists and pharmacy technicians.

Always insert a space between the number and the unit on dispensing labels.

Incident report

A female patient started rapid-acting insulin using a correction-dose schedule. Her blood glucose level determined how many units she needed to inject. She believed she was following the instructions on the dispensing label correctly. She injected 61 units of rapid-acting insulin instead of the intended 6 international units. As a result, she became comatose and was admitted to the intensive care unit via the emergency department.

Recommendations

For prescribers and pharmacists

- When prescribing or dispensing medicines with complex or variable dosing regimens, such as insulin, always explicitly discuss the dose to be administered with the patient or the person administering the medicine.
- When entering free text or abbreviated dosing instructions, always insert a clear space between the number and the unit. For example, write 6 IU or write 6 units in full.

For hospital pharmacists and pharmacists in charge

- Critically review all preconfigured insulin correction-dose schedules, protocols and labelling modules in the pharmacy information system to check that spaces are present between numbers and units.

For pharmacy information system and software ddevelopers

- Ensure that the system does not display numbers and units without an intervening space. For example, prevent 10MG and 6IE from appearing on dispensing labels and medication administration records.

Analysis

An unclear typeface or a missing space can lead to a serious insulin overdose. Clear dispensing labels and verbal instructions reduce this risk. The pharmacy label read 6IE, without a space (IE is the Dutch abbreviation for international units). In the typeface used, this looked like 61. The patient therefore made an understandable reading error.

Without a space, the capital letter I visually merges with the digit 6, making the text easy to misread as the number 61. A space between 6 and IE prevents the text from resembling 61. Replacing IE with the word eenheden (units) or the Dutch abbreviation EH makes the instructions even clearer. Dispensing labels often have limited space for explanations. Therefore, also explain verbally how many units the patient should use. This provides an additional check and helps prevent incidents