

Standardized hospital guidelines for paracetamol overdose – fewer prescription and drug administration errors?

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Introduction:

Paracetamol overdose is one of the most common drug overdoses in the UK. The standard treatment is intravenous N-acetylcysteine (NAC) which is usually administered as a 21-hour infusion in UK hospitals. A 12-hour infusion known as the “SNAP” regimen has been implemented in some centres and appears on the TOXBASE database (UK Poisons Information). The availability of two treatment options has caused confusion in our centre resulting in an increased number of prescribing and administration errors.

Aims/Objectives:

To produce a standardized guideline and prescription chart in two District General Hospital Emergency Departments within the same NHS Trust as part of a Quality Improvement Project (QIP) in an effort to reduce prescribing and administration errors for NAC.

Methods:

Trust guidelines for Paracetamol overdose were revised using the 12-hour regimen for adults only. A retrospective review of patient notes and electronic discharge summaries was performed prior to and following the implementation of the new guidelines to identify patients that received NAC. The Trust electronic incident reporting system (DATIX) was reviewed for incidents relating to NAC prescription or administration.

Results:

We had four incidents over three months prior to the introduction of the new guidelines and pre-filled prescription charts. Following the introduction of our new guidelines and prescription charts there were no incidents reported of errors related to NAC. One incident reported was a 16-year-old patient incorrectly receiving the SNAP regimen (without adverse effect) rather than the 21-hour infusion for paediatric patients.

Discussion:

Use of pre-filled charts reduced the potential human factors in prescription mistakes especially in inaccurate dose calculations and drawing up errors. The charts also prevented confusion between the 21-hour and SNAP NAC Protocols. The standardized guidelines along with the pre-filled charts have reduced the rate of prescription and administration errors of NAC.