

# DIABETICS AT RISK OF MEDICATION ERRORS

## 1 Problem

### Step 1. Outline the Problem

What	Problem(s)	High rate of medication errors for diabetic hospital patients
	Date	2012
When	Differences	Diabetic patients, insulin required to regulate blood sugar levels
	Physical Location	Study looked at hospitals in England and Wales
Where	Physical Location	Study looked at hospitals in England and Wales
	Impact to the Goals	Safety Risk to diabetic patients
Frequency	This incident ??	32% of patients experienced at least one medication error in the previous seven days of their hospital stay
	Annual Total ??	

A new study says 32% of diabetic hospital patients experienced at least one medication error in a one week period.

"Training needs to be mandatory to improve diabetes control and reduce the frequency of severe hypoglycaemia."

- Dr Gerry Rayman, Audit lead clinician

## Cause Map

Cause Mapping is a Root Cause Analysis method that captures basic cause-and-effect relationships supported with evidence.

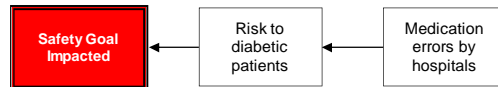
## CAUSE MAPPING

Problem Solving • Incident Investigation • Root Cause

- Step 1 Problem** What's the Problem?
- Step 2 Analysis** Why did it happen?
- Step 3 Solutions** What will be done?

## 2 Analysis

**Basic Level Cause Map** - Start with simple Why questions.



### Basic Cause-and-Effect

A study that looked at bedside data for 12,800 patients and 6,600 patient questionnaires found that nearly a third of diabetic hospital patients experienced a medication error in a one week period. This is significant because diabetics require medication to regulate blood sugar levels and levels that are too high or too low can result in severe illness and even death.

### More Detailed Cause Map -

Add detail as information becomes available.

### More Detailed Cause-and-Effect

Medication errors when treating diabetics can have severe consequences because many diabetics require medication to maintain healthy blood sugar levels. The two most common errors found by the study were failing to properly adjust medication when a patient's blood sugar level was high (23.9%) and failing to sign off on the patient's bedside information chart when insulin was given (11.1%).

In this example, the risk to the diabetic patients occurred because medication errors occurred and the patients required medication to maintain healthy blood sugar levels. The study did not provide details on why the medication errors were made by hospital staff, but that information could be added to the Cause Map if it becomes known. A Cause Map can still be useful when only a high level map can be built because it can help identify an at-risk population and a common problem, the diabetic patients and the medication errors, which could help identify where more research is needed or where resources could be directed.

## 3 Solutions

The final step of the Cause Mapping process is to come up with potential solutions that could be used to prevent the problem from reoccurring. In this example the solution that has been suggested is more training for hospital staff on how to treat diabetic patients.

For a free copy of our Root Cause Analysis Template in Microsoft Excel, used to create this page, visit our web site.

