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.

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.

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

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

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

- Dr Gerry Rayman, Audit lead clinician

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.

Evidence: In the study, 68 patients developed diabetic ketoacidosis during their stay in hospital which occurs when insulin is not given for a significant time.

Evidence: The study found this happened to 11.1% of the patients

Evidence: The study found this to 23.9% of the patients

Evidence: Study found at least one mistake per inpatient in the treatment of 3,700 diabetes sufferers

Medication errors by hospitals

Medication wasn’t adjusted when patient had a high blood sugar level

Medication required to regulate glucose levels

Diabetes affects glucose levels

High or low glucose levels cause illness and death

NOTE: Read the Cause Map from left to right with the

Effect

Cause

AND

OR

OR

OR

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