A hospital in Oregon administered the wrong medication to a patient who stopped breathing. Because of a fire alarm that happened shortly afterwards, the patient was not monitored for about twenty minutes. After that time the patient had experienced irreversible brain damage and was taken off life support.

“We want the community to know what happened. Precautions need to be taken. The only message we really have is that life is short and you never know when something like this could happen.”

- Mark Macpherson, victim’s son

“Wrong medication put in IV bag.”

- Karen Reed, Chief Nursing

“Patient stopped breathing.”

- Dr. Michel Boileau, Chief Clinical Officer

1. **Problem**
   - **What**: Wrong medication, lack of monitoring lead to patient death
   - **When**: December 3, 2014
   - **Where**: Bend, Oregon
   - **Impact to the Goals**: Patient death

2. **Analysis**
   - **Step 1**: Problem
     - **What**: Wrong medication, lack of monitoring lead to patient death
     - **When**: December 3, 2014
     - **Where**: Bend, Oregon
     - **Impact to the Goals**: Patient death
   - **Step 2**: Analysis
     - **Task being performed**: Cause Mapping
     - **Cause Map**: Cause Mapping is a Root Cause Analysis method that captures basic cause-and-effect relationships supported with evidence.
   - **Step 3**: Solutions
     - **Possible solution**: Implementation of safety zone for medication verification
     - **Possible solution**: Review/ update medication protocols
     - **Possible solution**: Add alert stickers to paralytic agents
     - **Possible solution**: Ensure monitoring of patients after IVs started

3. **Solutions**
   - **No.** | **Action Item** | **Cause** |
   - 1 | Implementation of safety zone for medication verification | Wrong medication put in IV bag in pharmacy |
   - 2 | Review/ update medication protocols | Ineffective/ no double check of medication at pharmacy |
   - 3 | Implementation of detailed checking process | Patient administered paralyzing agent via IV |
   - 4 | Add alert stickers to paralytic agents | Patient death |
   - 5 | Ensure monitoring of patients after IVs started | Cardiac arrest/ brain damage |

**Cause Mapping**

- **Step 1**: Problem
- **Step 2**: Analysis
- **Step 3**: Solutions