

Case Study A

A nurse was in charge of the night shift on a 29 bed, specialty surgical ward. The shift was incredibly busy due to the acute status of 4 patients and the high nursing care needs of 6 others. A floating nurse who was unfamiliar with the unit and specialty was on duty with her. At 0500 hours a heparin infusion needed replacing.

The nurse was tired, stressed and felt rushed to draw up the infusion so she could return to the sicker patients with whose condition she was preoccupied. She quickly made the calculation and started to draw up the drug. Before she completed this she had to attend to a patient so she rushed to draw up the infusion. As she left the unit, her colleague asked, "Can I set this up?" to which she replied "No, I need to check it again". It was 45 minutes before she got back to the desk where she found it missing and was told that it was being administered to the patient.

When she asked if the administering nurse had checked it the answer was, "No, you've already done it". The nurse quickly performed the calculation again and discovered the dose was incorrect. The error was corrected and no harm came to the patient. When the charge nurse arrived at 0715, the nurse discussed what had happened with her, what had gone wrong and the lessons learned. The nurse was upset and tearful. Once the nurse left the unit she realized she had not completed an incident form. When she returned for a shift two days later she completed the form. The following day she received a call at home to say the charge nurse wanted to take the matter further, there would be an investigation and she was suspended from drug administration until a formal disciplinary hearing could be held.

Some of the common human factors that can increase risk include:

- mental workload
- fatigue
- distractions
- the physical environment
- physical demands
- device/product design
- teamwork
- process design
- medical device design

Applying what you've learned:

1. What are some human factors principles involved here?
2. How could Human Factors Engineering been applied to this scenario to reduce risk?