Are Medical Residents Dangerously Fatigue?

USA February 2013

Problem

What

Fatigued medical residents, concerns about potential for medical errors

When

Ongoing

Differences

USA (Other countries have different regulations)

Impact to the Goals

Safety

Potential risk to patients

Potential risk to medical residents

Analysis

Safety Goal

Impacted

Potential risk to patients

Higher likelihood of medical errors

Fatigued residents treating

AND

Residents may be very fatigued

Residents not getting adequate sleep

Possible Solution: Impose more limitations on working hours.

Residents programs are demanding

Limited time to prepare someone to be an independent

Safety Goal

Impacted

Potential risk to medical residents

Higher risk of car accidents

Evidence: Poll by the Mayo clinic found that 11% of medical residents had been in a car accident.

Fatigued people are more likely to make mistakes

Residents may be fatigued

Neurobehavioral performance is impaired when sleep deprived

Residents treat patients

Routine part of their training program

AND

Evidence: Studies have shown that sleep deprivation raises the risk for heart disease, breast cancer, and gastrointestinal problems.

Increased likelihood of exposure to disease

Fatigued people are more likely to make mistakes

Residents may be fatigued

AND

Increased likelihood of blood and body fluid exposure

Evidence: During a poll by the Mayo clinic about 8% of residents reported having at least one blood and body fluid exposure due to fatigue or stress during the study period.

Risk of long term health issues

Sleep deprivation can have long term health consequences

AND

Residents may be fatigued

See same cause

Increased likelihood of exposure to disease

Fatigued people are more likely to make mistakes

Residents may be fatigued

Security Goal

Impacted

Potential risk to patients

Increased likelihood of exposure to disease

Residents may be fatigued

See same cause

Why

Effect

Cause

NOTE: Read the Cause Map from left to right with the phrase "Was Caused By" in place of each arrow.

The final step in the Cause Mapping process is to use the Cause Map to develop solutions that can be implemented to reduce the risk of the problem reoccurring.

While there is ongoing debate on whether residents are still working too many hours, there have been changes made to reduce resident fatigue. In 2003, residents were limited to 80 hours per week by the Accreditation Council for Graduate Medical Education. Prior to this move, there was essentially no limit to the hours a resident could log. This issue isn’t black and white and there are also many who argue that the limits have had negative unintended consequences. Fewer hours in the hospital mean that residents see fewer patients and have less experience when they become independent physicians. Limiting shifts also increases the potential for each patient to be seen by more doctors and for essential information to be lost during turnovers. This isn’t an issue with a clear answer and any additional restrictions in the hours a resident is allowed to work will need to be mitigated with effective methods of turning over patient care and assurances that residents are getting adequate training.