Identifying Causes of a Diagnostic Error Using the Modified Fishbone Diagram

Yuko Shirouchi, MD, Keita Hibako, MD, Shadia Constantine, MD, MPH, FACP
Teine Keijinkai Hospital
Sapporo, Hokkaido, Japan
Conflict of interest: none

Learning objectives

1. Recognise the complexities of diagnostic errors.
2. Describe using the modified fishbone diagram to approach diagnostic errors.
Case information

• A 67-year-old man
• Discomfort on his right lower extremity, rapidly progressing to pain and inability to move the extremity, but resolved when arrived to ED.
• On examination: a massive right inguinal hernia
• Rest of exam and testing were normal.

• The cause of the symptoms was not clear and our hypothesis was transient nerve compression due to inguinal hernia.
• The hernia was reduced and the patient was discharged.
• Nine days later, he returned to the ED with right extremity weakness.
• CT scan: several right ilium fractures.
• The patient admitted falling the day before his first presentation.
Discussion

• With this exercise, we learn
  a) a structured approach to the analysis of diagnostic error.
  b) to identify cognitive contributing factors, such as cognitive process, communication, clinician support and data gathering.
• We plan to teach this methodology to our fellow residents to help them learn how to analyse diagnostic error and to identify and differentiate cognitive from systemic contributing factors.

References

2. Institute of Medicine Report