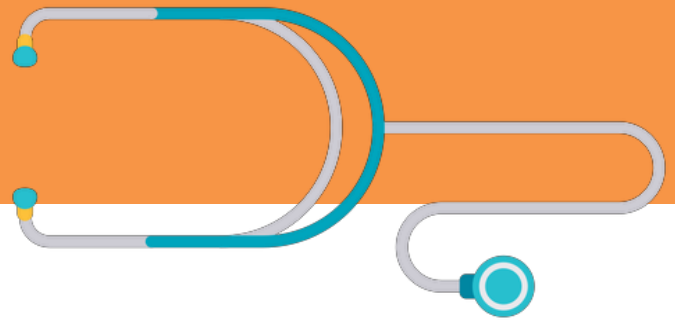
THREATS TO CLINICAL PRACTICE

12 Causes of Human Factor Errors



BCEHS | BC Emergency Health Services
Provincial Health Services Authority

1 LACK of COMMUNICATION

Failing to transmit, receive, provide adequate information, and confirm understanding lead to a communication error. Failures in communication are a leading cause inadvertent patient harm.

Improve your communication…

- Communicate using: Cite name, be clear and concise, always closed the loop
- Use CUS approach: "I am **C**oncerned with", "I am **U**ncomfortable with", "this is a **S**afety issue" or "STOP STOP STOP"
- Be directive, descriptive and informative in crisis situations
- Standardize and adopt organizationally accepted tools: e.g. S.B.A.R; ATMISTAMBO

2 COMPLACENCY

Failing to recognize complacency leads to skills based human errors, slips of action and lapses of memory. Recognize the negative effects of overconfidence and boredom, appreciate the complexities and unpredictability of the out-of-hospital environment. Manage the stress-boredom cycle and attitudes by maintaining vigilance.

Use your downtime wisely…

- Optimize workflow and expect to find errors
- Practice positive habit-forming activities
- Standardize practice, use checklists and follow policy
- Limit distractions during routine work

3 LACK of KNOWLEDGE

Lack of fundamental knowledge or failure to access information in the time of need.

Don't guess, know…

- Participate in training opportunities
- Use practice guidelines/checklists and follow operational policy
- Reach out to team and/or CliniCall when you don't know
- Maintain a working knowledge of practice and operational updates

4 DISTRACTIONS

Limit distractions during high-stakes/risk work or during tasks requiring high focus.

Stay in "the zone"…

- Know and control the environment
- Limit non-priority conversations in high acuity situations
- Recognize situations where distractions are a threat to patient care and safety
- Keep on point with conversations and check your work after a distraction
- Improve performance by: 1) positive self talk 2) mental rehearsal 3) using a trigger word

5 LACK of TEAMWORK

Failing to develop effective teamwork leads to lack of situational awareness, unnecessary cognitive loading, prolonged scene times, and lack of task execution.

Develop team intelligence …

- Distribute workload appropriately and encourage cross-monitoring
- Pre-brief and debrief all events (use debriefing checklist)
- Share information: use common language and developed mental models
- Don't underestimate the power of "my name is" in team building

6 FATIGUE

Fatigue threatens all aspects of work performance leading to lack of awareness, memory lapses, lack of motivation and concentration, risk-taking behaviours, errors in judgement and decision-making, and failure to plan and problem solve.

Eliminate fatigue-related performance issues…

- Watch for signs of fatigue in self and others - "stop the line" as required
- Have team members cross monitor high-stakes work, especially near the end of your shift
- Use the IM SAFE fatigue check before and during shifts
- Use primary and secondary fatigue countermeasure techniques

References: https://www.tc.gc.ca/media/documents/ca-standards/hpf_elementary.pdf; https://www.ccohs.ca/; Peter-Marc, F., Davis, M., Hanson, J., & Phillips, B. (2013). Human Factors in the Healthcare Setting: A Pocket Guide for Clinical Instructors. In Human Factors in the Healthcare Setting: A Pocket Guide for Clinical Instructors. Wiley-Blackwell. https://www.faasafety.gov/files/gslac/library/documents/2012/Nov/71574/ DirtyDozenWeb3.pdf

LACK of RESOURCES

7

Not having enough responders and/or resources to complete task. This can be due to a combination of overwhelming numbers of patients, during remote, highly complex or rare events.

Improve supply and support…

- Use the principles of triage as required
- Focus on the principles of management and simplify practice: "need to do's"
- Lead the team, problem solve and innovate to manage situation
- Create system awareness by communicating needs

TIME PRESSURE

8

Real or perceived pressure to perform a task as measured against time. Few emergencies are *truly* time dependant and a function of paramedic skill, recognition, knowledge, awareness and context.

Manage time effectively…

- Recognize situations when time matters
- Recognize time pressure can degrade performance
- Put paramedic and patient safety first
- Manage workflow and optimize team to balance safety and efficiency
- Prioritize: "need to do from nice to do" or "nice to know from need to know"

LACK of ASSERTIVENESS

9

Failure to voice concerns will lead to a failure of teamwork and reduced team/global situational awareness. Use principles of crew resource management in daily practice.

Express opinions, beliefs, and needs in a positive, productive manner…

- Advocate and express concerns, present solutions
- Team: Use graded assertiveness language/techniques to transcend authority gradients
- Seek clarity and direction when doubts exist
- Leader: managing the hierarchy by empowering team members to speak up

LACK of THREAT AWARENESS

10

Factors that increases operational or clinical complexity thus contributing to an error (future event).

Identify operational and clinical threats…

- Recognize (by maintaining a high degree of situational awareness)
- Verbalize (communicate threat)
- Verify (concur with others)
- Resolve (mitigate where possible)
- Monitor (use active situational awareness)

LACK of SITUATIONAL AWARENESS

11

Loss of situational awareness means a failure of one or more of the following: *perception* (noticing or cueing), *comprehension* (understanding of situation) and *anticipation* (predict trajectory and direction).

Know your environment…

- Communicate to convert local to global situational awareness during high focus skills
- Protect awareness by develop unconscious habits to critical cues
- Apply active and passive situational awareness techniques where appropriate
- Loss of situational awareness: **S**top **L**isten **A**ssess **M**anage – Engage brain before hands

HIGH STRESS

12

Recognize acute proportional stress increases performance. Unmitigated or overwhelming acute stress leads to shutting down, compartmentalizing, fixation and cognitive lock-in.

Mitigate unwanted stress and predict when work gets busy…

- Keep current in training obligations and overlearn important skills
- Use teamwork and distributive cognition through quality team communication
- Use checklist and strict adherence to operational policy/clinical practice guidelines
- Simplify tasks and practice in face of complexity and stress
- Use low energy leadership strategies to protect individual and team bandwidth

It's estimated that as much as 90% of errors in the workplace are attributed to human error…[1]

Errors are not character defects …but byproducts of normal thinking that occur frequently.[2]

(1) Emerg Med J 2012;29:389e393.doi:10.1136/emj.2010.107698; (2) J Am Coll Surg. 2000 Oct;191(4):410-8.