

ENTS

Non-technical skills

- High risk industries, especially aviation

“Skills crucial for maintaining safety that are not directly related to technical expertise”

- Interpersonal skills (communication, teamwork)
- Cognitive skills (task management, decision making)

Relevance to BCS

- Assessment of:

- Knowledge

- MCQ

- Skills

- DOPS

- Attitudes

- ?

Attitudes affect behavior

Behaviour can be measured

Attitudes

Too cautious

Acceptable for routine work

Too cavalier



Acceptable for emergency work

ENTS taxonomy

- Development of a taxonomy (list) for non-technical skills in endoscopy
 - Critical incident analysis
 - Behavioural marker identification
- Produce a tool for assessment of NTS

Critical Incident Analysis

- 9 interviews recorded and transcribed
 - Post polypectomy bleed
 1. Trainee colonic polypectomy
 2. Oesophageal EMR
 3. UGI polypectomy
 - Perforation
 4. Colonic stricture dilatation
 5. Unsupervised trainee diagnostic colon
 6. Unsupervised trainee diagnostic colon
 7. Diagnostic colon
 8. ERCP
 - Oesophageal dilatation
 - Difficulties (near miss)

Critical Incident Analysis

“basically he said to me it was the biggest polyp he’d ever seen, but... uh... he didn’t call a senior.. he decided to go ahead with the polypectomy, and ran into difficulties. So there were clear issues regarding perhaps the attitude of the trainee, perhaps what we had told or instructed the trainee as to how he should be operating.”

Critical Incident Analysis

“basically he said to me it was the biggest polyp he’d ever seen, but... uh... he didn’t call a senior.. he decided to go ahead with the polypectomy, and ran into difficulties. So there were clear issues regarding perhaps the attitude of the trainee, perhaps what we had told or instructed the trainee as to how he should be operating.”

Judgement
Communication
Decision making

Overconfidence
Supervision/ leadership
Communication

| Communication | | |
|-----------------------------|---------------------|------------|
| Teamwork | | |
| Leadership | | |
| Confidence | | |
| Emotional control | | |
| Pre | During | Post |
| Planning | | |
| Assessing situation | | |
| Judgement & Decision making | | |
| | Focus | |
| | Awareness | |
| | Problem recognition | |
| | Problem management | |
| | Responsibility | |
| | | Reflection |

Video analysis of professional behaviour

- Identify behavioural markers that map to the non-technical skills
 - Directly observable or inferred through communication
 - Can be used to structure training and evaluation of NTS

Mapping

NTS

Behaviour

Communication
& Teamwork

| | | |
|-----------------------------|---------------------|------------|
| Communication | | |
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NTS

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Communication
& Teamwork

Leadership

Mapping

NTS

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|-----------------------------|---------------------|------------|
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Behaviour

Communication
& Teamwork

Leadership

Situation
Awareness

Mapping

NTS

| Communication | | |
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| | | Reflection |

Behaviour

Communication
& Teamwork

Leadership

Situation
Awareness

Judgement &
Decision Making

Observation of ENTS

| Category | Rating | Element | Rating |
|-----------------------------|--------|--------------------------------------|--------|
| Communication & Teamwork | | Exchanging information | |
| | | Maintaining shared understanding | |
| | | Maintaining patient-centred approach | |
| Situation Awareness | | Preparation | |
| | | Continuous assessment | |
| | | Problem recognition | |
| Leadership | | Supporting others | |
| | | Maintaining standards | |
| | | Dealing with problems | |
| Judgement & Decision making | | Recognising issues | |
| | | Considering options | |
| | | Making decisions | |
| | | Reviewing the situation | |

1=Poor 2=Marginal 3=Acceptable 4=Good N/A= Not applicable

Communication & Teamwork

- Clear, polite instructions to staff and patient
- Gives clear information regarding intentions and findings
- Gives clear specific requests for equipment
- Talks about progress of the procedure to staff and patient

Exchanging
Information

Communication & Teamwork

- Clear, polite instructions to staff and patient
- Gives clear information regarding intentions and findings
- Gives clear specific requests for equipment
- Talks about progress of the procedure to staff and patient
- Encourages input from team members
- Ensures team ready before starting
- Keeps instructions calm and controlled in difficult situations

Exchanging
Information

Maintaining
Shared
Understanding

Communication & Teamwork

- Clear, polite instructions to staff and patient
- Gives clear information regarding intentions and findings
- Gives clear specific requests for equipment
- Talks about progress of the procedure to staff and patient
- Encourages input from team members
- Ensures team ready before starting
- Keeps instructions calm and controlled in difficult situations
- Greets patient politely
- Allays patient anxiety
- Warns patient prior to uncomfortable event
- Informs patient of findings in non-technical language
- Checks patient understanding

Exchanging
Information

Maintaining
Shared
Understanding

Maintaining
Patient-centred
Approach

Communication & Teamwork

i. Exchanging information

Giving and receiving knowledge and information in a clear and timely fashion.

| Good behaviours | Poor behaviours |
|--|--|
| Gives clear, specific instructions to staff and patient | Fails to give clear instructions |
| Seeks further information to aid understanding e.g. previous endoscopy reports | Does not seek further information or makes inappropriate assumptions |
| Listens and responds to team input | Does not listen to or acknowledge team members |
| Confirms team preparation including equipment availability | Does not check if team ready or if equipment available |

Communication & Teamwork

ii. Maintaining a shared understanding

Ensuring that both the team and the endoscopist are working together from the same information and understand the 'big picture' of the case.

| Good behaviours | Poor behaviours |
|---|---|
| Clarifies indication and objectives with team | Does not discuss case beforehand with team members |
| Confirms shared information with team e.g. medication doses, patient parameters, therapeutic efficacy | Does not check information with team |
| Talks about progress of procedure, including difficulties and concerns | Fails to keep team informed about progression or problems |
| Gives notice prior to therapeutic intervention to allow preparation time | Does not anticipate need for therapy |
| Explains unusual findings to team or trainee to increase understanding | Does not discuss findings within the team |
| Calmly indicates when situation requires urgency | Fails to convey need for urgency when required |

Communication & Teamwork

iii. Maintaining a patient-centred approach

Ensuring that the patient is at the centre of the procedure, emphasising safety, comfort and giving information in a clear and understandable fashion

| Good behaviours | Poor behaviours |
|--|---|
| Greets patient and introduces self and team | Does not introduce self |
| Allays patient anxiety and maintains a relaxed atmosphere | Makes no attempt to reassure patient or maintain relaxed atmosphere |
| Gives clear instructions to patient | Does not give clear instructions |
| Regularly checks patient comfort | Does not check or ignores patient discomfort |
| Warns patient prior to uncomfortable event e.g. PR examination | Makes no effort to warn patient prior to uncomfortable events |
| Keeps patient informed about procedural progression (if appropriate) | Does not attempt to involve patient in the procedure |
| Explains findings to patient in clear, understandable language | Does not explain findings to patient or uses complex language or jargon |

Situation Awareness

i. Preparation

Ensuring that the patient is fit, the procedure is appropriate, and that it is being done by an endoscopist with the necessary skills, equipment and assistants for safe and successful completion

| Good behaviours | Poor behaviours |
|---|--|
| Checks indications are appropriate | Does not make a pre-procedural review of notes or patient |
| Checks patient is fit for the procedure, including comorbidities and allergies | Fails to question indications and proceeds with inappropriate procedure or unfit patient |
| Checks unfamiliar assistants are adequately trained and experienced for the procedures | Fails to appreciate limitations of staff experience or views |
| Ensures equipment present and functioning correctly | Makes no effort to check equipment supplies or functioning |
| Optimises environmental conditions before starting e.g. bed height, equipment positioning | Proceeds with procedure in inadequately set-up or inappropriate surroundings |
| Does not perform procedure beyond own level of skill or experience | Proceeds with procedure beyond own limitations |

Situation Awareness

ii. Continuous assessment

Maintaining a continuous evaluation of the patient's condition and updating the shared understanding to identify any mismatch between the current situation and expected state.

| Good behaviours | Poor behaviours |
|---|--|
| Regularly checks patient response to sedation | Does not monitor patient or over-relies on assistants to identify problems |
| Articulates findings clearly | Overlooks or ignores findings |
| Uses all available techniques to inform decision-making process | Fails to adequately assess for pathology |
| Monitors results from therapy e.g. bleeding, patient pain | Discards results or findings that are not expected |
| Re-evaluates risk regularly depending on findings | Ignores results or findings that may increase risk |

Situation Awareness

iii. Problem recognition

Recognising a mismatch between the current situation and the expected state and anticipating what may happen as a result of possible actions, interventions or non-intervention.

| Good behaviours | Poor behaviours |
|---|---|
| Identifies issues quickly and highlights them to the team | Fails to identify problems |
| Articulates difficulties in procedural progression | Fails to discuss potential problems |
| Recognises increased risk due to unexpected finding | Proceeds with overconfidence with no regard for what may go wrong |
| Reflects and discusses significance of issues with team | |

Situation Awareness

iv. Focus

Ensuring lack of distractions and maintaining concentration, particularly during difficult situations

| Good behaviours | Poor behaviours |
|---|---|
| Minimises interruptions (e.g. by locking door) | Fails to limit distractions (e.g. not turning mobile phone off) |
| Stops inappropriate discussions or distracting behaviour by staff | Tolerates inappropriate discussion or distracting behaviour |
| Keeps focus on screen at all times | Allows attention to be diverted easily |
| Maintains silence if needed during technically difficult manoeuvres | |

Leadership

i. Supporting Others

Providing emotional and cognitive support to team members and trainees by tailoring leadership and teaching style appropriately

| Good behaviours | Poor behaviours |
|--|--|
| Maintains a relaxed atmosphere | Shows hostility or negativity to other team members |
| Gives praise for tasks done well | Fails to provide recognition for tasks done well or criticises inappropriately |
| Uses varied teaching techniques according to trainee needs | Fails to recognise needs of trainee or other staff |
| Does not rush staff when not necessary | Fails to recognise needs of others, requiring task reallocation |

Leadership

ii. Maintaining standards

Supporting safety and quality by adhering to current protocols and codes of clinical practice

| Good behaviours | Poor behaviours |
|---|--|
| Clearly follows unit procedures and protocols | Fails to observe protocols and standards |
| Ensures privacy and patient dignity | Shows disrespect to the patient |
| Adequately documents procedure immediately afterwards | Fails to adequately document procedure |

Leadership

iii. Dealing with problems

Adopting a calm and controlled demeanour when under pressure. Utilising all resources to maintain control of the situation and taking responsibility for patient outcome

| Good behaviours | Poor behaviours |
|--|--|
| Emphasises urgency of the situation if needed | Suppresses or minimises concerns over problems |
| Gives clear directions to team to help resolve problem | Fails to assume leadership role |
| Delegates tasks in order to achieve goals | Fails to use team effectively to address situation |
| Remains calm under pressure | Panics or loses temper when under pressure |
| Maintains control and assumes responsibility for the patient | Blames others for errors and does not take personal responsibility |

Judgement & Decision Making

i. Considering Options

Generating possible courses of action to solve an issue or problem, including assessment of risk and benefit

| Good behaviours | Poor behaviours |
|---------------------------------------|--|
| Generates options to resolve problems | Does not discuss options |
| Initiates discussion of options | Does not solicit views of team members |
| Weighs up pros and cons | Makes no evaluation of risk |
| Seeks help or opinion of colleagues | Fails to seek help when needed |

Judgement & Decision Making

ii. Making Decisions

Choosing a solution to a problem, communicating this to team members and implementing it

| Good behaviours | Poor behaviours |
|--|---|
| Reaches and clearly communicates decisions | Hesitates or fails to reach a decision when time critical |
| Implements plan effectively | Selects inappropriate option that leads to increased risk or complication |
| Makes provision for alternate options | Does not develop provisional plan if option is unsuccessful |

Judgement & Decision Making

iii. Reviewing situation

Reviewing outcomes of procedure or options for dealing with problems. Reflecting on issues and instituting changes to improve practice

| Good behaviours | Poor behaviours |
|---|--|
| Re-evaluates outcomes and checks for complications | Does not review the impact of actions |
| Asks for opinion of team members | Fails to seek alternate opinions |
| Debriefs team and reflects on procedural difficulties and alternate solutions | Makes no effort to discuss problems or successes |
| Ensures appropriate follow-up for patient | Fails to arrange suitable follow-up |
| Makes changes based on reflection to improve practice | Makes the same error repeatedly |

Observation of ENTS

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ENTS Rating

| Rating | Label | Description |
|--------|----------------|--|
| 1 | Poor | Performance endangered or potentially endangered patient safety. Serious remediation is required |
| 2 | Marginal | Performance indicated some cause for concern. Considerable improvement is needed |
| 3 | Acceptable | Performance was of a satisfactory standard, but could be improved |
| 4 | Good | Performance was of a consistently high standard, enhancing patient safety. It could be used as a positive example for others |
| N/A | Not Applicable | Not applicable or not observed |

Uses

- 1) Raise awareness of NTS
- 2) A framework for self-reflection
- 3) Integrated assessment of KSA
- 4) Identify strengths and weaknesses for skills development