**Complexity risk matrix**

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **LEVEL OF COMPLEXITY** | HIGH |  |  | LIMINAL ZONE |  | LIMINAL ZONE |  |
| MEDIUM |  |  |  |  |
|  |  |  |  |
| LOW |  |  |  |  |
|  | SCENARIO | LOW RISK - GREEN ZONE | MEDIUM RISK - AMBER ZONE | HIGH RISK - RED ZONE |
|  | | | **ZONE OF CLINICAL RISK** | | | | |

Clinical exposure alone cannot be relied upon to offer a full range of experiences. The reflection and feedback that form an essential part of learning may simply not be feasible in a clinical setting.

Treatment assessments can vary in complexity from apparently straightforward to highly demanding. From a learning perspective it is useful to characterise the level of complexity alongside the level of responsibility of the learner.

Safety requires an awareness of the complex processes that underline routine practise, coupled with an ability to recognise problems at an early stage and head them off before they escalate into adverse events. Ensuring that things go right is as important as knowing what to do when they go wrong.

For any level of learning it is suggested to complete a matrix of complexity and risk, based on situations relevant to the learner at their level of responsibility and autonomy.

**Green Zone**:

* Low risk conditions apply to contexts where the treatment is routine and nothing goes wrong.
* Learning requires an understanding of how each normal is underpinned by complex events and interactions and how these interconnect into a good outcome.

**Amber Zone:**

* Moderate risk conditions refer to situations in which there are potential problems (e.g. high risk patients, problematic environments).
* Learning requires recognition that such conditions are present, and that otherwise innocuous events may lead to undesirable consequences.

**Red Zone:**

* High risk conditions refer to serious but rare crises (including life threatening events that require immediate action).
* Learning requires an awareness when this zone is reached, and how to act effectively within a team (as a leader or a follower).

The distinctions between these zones may be ill-defined, and the ability to recognise liminal zones is crucial. At such areas of transition, timely and effective action can halt progression towards danger and prompt a return to the green zone of relative safety. Inaction, by contrast, may lead to exacerbation of risk and spiralling danger.

*Adapted from “Complexity, risk and simulation in learning procedural skills”; Kneebone, R., Nestel, D., Vincent, C., Darzi, A. Medical Education 2007: 41: 808-814*

Suggestions for completion of complexity risk matrix

1. Identify 4 patients to fulfil each level of complexity and with joint discussion with peer identify level of risk for each patient. Discuss with mentor
2. Identify 2 patients and following joint discussion with peer complete appropriate aspects of matrix. Discuss with mentor.
3. With educator present identify 1 patient and discuss rationale for place on matrix. Patient may have different issues placed within different aspects of matrix.
4. Discuss and map aspects of a single presentation across the complexity risk matrix. Present and discuss with mentor.
5. Identify 3 presentations not experienced on this placement and complete appropriate aspects of matrix. Present to mentor and discuss how you would manage this level of complexity and risk.