Appendix A: Vignettes presenting tensions related to simulation-based assessment

**Vignette 1.** **Simulation before real world:**

Peter is an emergency medicine resident in the Core of Discipline stage of training. He has recently completed a simulation-based training course for the placement of central venous catheters (CVC). At the end of the course there was an assessment and Peter did not meet the competency benchmark. A few days later Peter is working in the ER and he sees a patient who requires a CVC. Should he be able to attempt the procedure in the ‘real world’? Consider Peter’s perspective as well as the perspective of the supervising attending physician, his Program Director, and the patient.

**Vignette 2.** **Simulation is a “safe space” for learning**:

Emergency Medicine residents in Program “X” have voiced concern over the increased use of simulation-based assessment. They feel that they can’t ask questions or demonstrate vulnerabilities/uncertainty in the simulation lab as there is often assessment tied to these sessions. Faculty promote the message that “simulation is for low stakes assessment and it’s for your learning”, but the residents are skeptical and feel that any recorded assessment is high stakes. How would you

advise the Program Director at school “X” on the use of simulation-based assessment of their residents?

**Vignette 3. Simulation for high-stakes assessment:**

The licensing body of EM in country “X” is considering the use of simulation-based assessment for licensing (high stakes) examinations. However, they have encountered challenges that require deliberation. For example, assessment scholars contend that the psychometric properties (validity and reliability) of simulation-based assessment have not been well studied. Program Directors are concerned about the discrepant use of simulation across residency programs and how this may affect exam performance, and residents aren’t sure how objective the marks can be with so many different variables at play (i.e. different examination locations, confederates, assessors, technical problems, etc). How would you advise the licensing body in country “X” to move forward? Should simulation be used for high stakes (licensing) assessment? Why or why not?

**Vignette 4. Feasibility of simulation-based assessment on a national scale**

A National specialty body has recently endorsed a simulation curriculum for all EM residents. The program director at school “X” has voiced concerns over their ability to provide the required simulation-based assessments for their residents. They have limited resources and lack the necessary faculty and simulation lab time. Word of this has spread and applications to program “X” are declining. The Program Director isn’t sure who’s responsibility it is to ensure her program is able to meet the national guidelines. How would advise this Program Director to proceed?

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