

## ICOSSET 2022

### Parallel Session 2: Online Learning in Surgical Training and Practice

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#### Intended learning outcomes:

- To conduct a brief review of the types of online learning platforms
- To have practicing surgeons and trainees share the online resources they use for surgical learning
- To arrive at some consensus about what constitutes high-quality online resources

#### What went well:

A brief review of online resources was presented by faculty panelists, followed by a comparison of surgical training pathways in the US vs. UK presented by trainee panelists. Through the use of open-ended questions, lively discussion was fostered both between the attendees and the presenters, and between the attendees themselves. Rather than a didactic presentation, the majority of the parallel session became a more free-flowing conversation that facilitated near-complete engagement from all delegates. This was aided by the smaller, more informal nature of the parallel session. By happenstance, the first parallel session day was attended by a larger proportion of trainers, while the second day was attended by a larger proportion of trainees. This allowed for interesting comparisons between trainer and trainee perspectives. In collaboration with the attendees, an “Online Training Resources Toolkit” was constructed. This provided examples of online resources, as well as pros/cons of these resources. This toolkit was freely available to access for all attendees via QR code.

#### Discussions:

In addition to the list of resources initially presented, attendees were asked to provide further examples of online resources that they use for learning. This led to a discussion of how and when attendees use these resources. Naturally, a larger discussion of how attendees decide which resources are valid followed. Trainers and trainees then discussed how they perceived the value of online resources. Finally, an “Online Training Resources Toolkit” was collaboratively constructed and distributed.

#### Learning:

Through wide-ranging discussion, we collectively learned that both trainers and trainees consider several issues when determining value in online resources. These considerations include cost, access (desktop vs. mobile), peer review/crowd-sourced ratings, language and time, among others. Trainees tended to use multiple resources for online learning, rather than a single source. Video resources tended to be highly utilized by both trainers and trainees, but especially by trainees. Trainees cited YouTube as a commonly used source, as well as certain

specialty-specific webcasts. In order to determine value, trainees utilized knowledge of source (peer-reviewed sites, trusted institutions), comparison to other videos, and trial-and-error. Trainees acknowledged that specific steps outlined in online videos may differ from steps they may encounter during training. However, they noted that this is similar to learning different trainer preferences in the operating theatre. One trainer noted that “even bad videos” can be a useful learning resource. Another trainer noted that as long as a trainee prepares prior to a case, it did not matter to them which resource was used. Both trainers and trainees noted that regardless of online learning resources used, in-person teaching by trainers was still critical to knowledge acquisition and consolidation. Intentional practice was also universally recognized as important for surgical training. Trainees also noted that despite the breadth of online learning resources, it was important to avoid “creep” of online learning outside of designated working hours in order to maintain adequate work-life balance.

#### **Take home learning:**

- Trainers and trainees consider several issues when determining the value of online learning resources
- Trainers and trainees typically use multiple online learning resources, rather than a single source
- Access to video resources is especially important for trainees
- Despite the breadth of online resources, both trainers and trainees acknowledge the importance of hands-on teaching for knowledge acquisition and consolidation
- Most online resources are only available in English, which may pose a barrier to access to non-native English speakers.

#### **Future orientation and possible implementation:**

The “Online Training Resources Toolkit” may serve as a resource for both trainers and trainees to understand which resources are available, as well as the pros/cons of each. Access to high-quality, mobile-enabled, and free online training videos is important for both trainers and trainees regardless of geographical location. Continued investment in increasing these video resources may allow for a more equitable distribution of surgical knowledge and training across the globe.