

## **Supplemental Material: Listing of Recommendations**

### **Simulation-Based Mock-Up Evaluation of Universal Operating Room Recommendations**

#### **Room Utilization**

1. Consider how to better utilize the space along the sterile core wall (e.g., move anesthesia boom mount, equipment storage, supply storage).
2. Relocate the sterile core door and pass through further towards the head wall.
3. Include a window on sterile core door.

#### **OR Lights**

4. Extend arm length of OR light (foot).
5. Review OR light arm lengths if mount locations change.

#### **Equipment Boom**

6. Use longer line/cord/tube lengths for devices connected to equipment boom.
7. Include minimum cord length as an equipment procurement criterion (use future simulations to determine minimum length).

#### **Anesthesia Boom - Head of OR Table**

8. Shift the anesthesia boom mount towards the sterile core wall.

#### **OR Table Positioning**

9. Consider moving OR table towards the foot and how this impacts the clean suite ceiling.

10. Validate that shifting the OR table location does not negatively impact nursing setup.
11. Include a visual indicator marking center of sterile field.

#### **IV Poles**

12. Consider the use of ceiling / bed mounted hooks instead of IV poles.
13. Test the use of ceiling / bed mounted hooks in future mock-up evaluations.

#### **Anesthesia Area**

14. Wall mounted items behind AWS area (and behind anesthesia boom) should be relocated closer to physician workstation.
15. Add anesthesia assist button and phone to head wall.

#### **Auxiliary Boom - Foot of OR table**

16. Relocate auxiliary boom to mount by corridor entrance. Ceiling mounted gasses may be an alternative.
17. Purchase in-field monitors with electrical plugs (gather electrical requirements for devices expected to be plugged in here).
18. Consider design features (size, storage height, storage location) when procuring the auxiliary boom to minimize congestion at the entrance.
19. Test auxiliary boom placement after procuring boom.

#### **Nurse Workstation**

20. Having the nurse workstation parallel to the corridor is preferred (if auxiliary boom is at foot). Consider and test an L-shaped workstation.
21. Ensure the nurse workstation is usable while facing towards and away from the patient (i.e., rotatable computer).
22. Accommodate charting while sitting and standing (i.e., standing desk with stool or sit-stand desk).
23. Recommended design features:
  - Allow visibility of patient while charting.
  - Computer should be rotatable.
  - Desk corners should be rounded.
  - Support multiple users simultaneously.
  - Increase the amount of available workspace provided.
24. Specimen supplies should be co-located near nurse workstation.

### **Physician Workstation**

25. Increase the amount of available workspace provided (chart, laptop).
26. Provide locked cupboards for personal items near OR.

### **Ceiling Lift**

27. Consider parking ceiling lift near nurse workstation.
28. Test both locations after selecting ceiling lift vendor with consideration for access and contamination of surgical prep area.

### **Validating Recommendations**

29. Continue to conduct mock-up evaluations to validate design changes.

- Incorporate design changes into the mock-up.
- Incorporate characteristics and functionality of equipment / devices into mock-up after selecting vendors.