WORKFLOW & ERGONOMICS

Improvements in the Hybrid OR

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Disclosure

Speaker name:

........Ramon L. Varcoe..........................................................

I have the following potential conflicts of interest to report:

- Consulting: Abbott Vascular, Medtronic, Boston Scientific, Intact Medical, Surmodics, Intervene
Prince of Wales Hospitals, Sydney Australia

• Over 618 inpatient beds between collocated Public and Private Hospitals
• 29 operating theatres
• 2 Hybrid ORs
Prince of Wales Hospitals, Sydney Australia

Hospital case mix:

- Cardiothoracic surgery
- Colorectal surgery
- Ear, nose and throat surgery
- Endovascular & Vascular surgery
- Gastroenterology and Endoscopy
- General Surgery
- Hand surgery
- Interventional neuroradiology
- Liver surgery
- Neurosurgery including minimal invasive neurosurgery
- Oncology
- Oral, dental and faciomaxillary surgery
- Orthopaedics
- Paediatrics
- Plastic, reconstructive and cosmetic surgery
- Spinal surgery inclusive minimally invasive surgery
- Urology
Hybrid OR case mix

- Endovascular Surgery
- Vascular Surgery
- Oncology
- Paediatrics
- General Surgery
- Pain management
Prince of Wales Hospitals, Sydney Australia

Current Hybrid OR – Allura FD20 with Clarity, Ceiling mounted
Prince of Wales Hospitals, Sydney Australia

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Current Hybrid OR – Allura FD20 with Clarity, Ceiling mounted
Philips Flexarm with Azurion Operating System
Prince of Wales Hospitals, Sydney Australia

3 Key Benefits of FlexArm for our lab environment

1. Flexible working positions
2. Ease of use
3. Ability to fit into current lab space
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3 Key Benefits of FlexArm for our lab environment

1. Flexible working positions
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3 Key Benefits of FlexArm for our lab environment

2. Ease of use

- One control joystick to move system gantry
- No need to worry about system movement – patient oriented
- Quick to learn to drive system
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3 Key Benefits of FlexArm for our lab environment

- Fits in current room space
- Minimise building works
- Minimise downtime
A characteristic aspect for the vascular surgeon are the sterility demands. Furthermore, the region of interest ranges from the chest down to the feet. Therefore, ergonomics and sterility are the vascular surgeon’s primary concerns.

<table>
<thead>
<tr>
<th>Procedure</th>
<th>Frequency</th>
<th>Anaesthesia</th>
<th>Access</th>
<th>Projections</th>
</tr>
</thead>
<tbody>
<tr>
<td>Complex aortic intervention</td>
<td>++</td>
<td>General</td>
<td>Femoral (70%)</td>
<td>± 30-40 deg in all directions and LAT</td>
</tr>
<tr>
<td>(e.g., EVAR, FEVAR, TEVAR)</td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Peripheral</td>
<td>++</td>
<td>General/Local</td>
<td>Femoral (80%)</td>
<td>AP &amp; 45 deg RAO/LAO</td>
</tr>
<tr>
<td>Pedal Access</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fistuloplasty</td>
<td>++</td>
<td>Local</td>
<td>Radial/Cephalic vein</td>
<td>Craniocaudal ±10 deg</td>
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• EVAR (complex)
• EVAR (complex): **FlexArm**

Need to move to 90 degrees Z-rotation for lateral projection
• Antegrade Peripheral
• Antegrade Peripheral: **FlexArm**
• Retrograde Up & over Peripheral
• Retrograde Up & over Peripheral: FlexArm
• Peripheral (pedal access)
• Peripheral (pedal access): **FlexArm**
• Fistuloplasty
• Fistuloplasty: FlexArm
CONCLUSION

• All hybrid operating rooms are different (Both in Size and Shape)
• All benefit from consideration of sterility and ergonomics
• A versatile, patient-centric C-arm configuration assists with ergonomics and workflow
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