An Algorithmic Approach to Managing Catastrophic Hypotension During TAVR

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Disclosures

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Timing is everything

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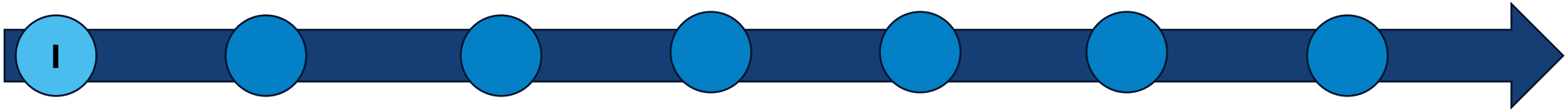
1. Sedation



Differential	Initial Steps
1. Med-induced hypotension 2. Hypoxia	1. Call for anesthesia if RN-led sedation 2. Anticipate intubation 3. Consider ECMO candidacy if hypotension not imminently reversable

Timing is everything

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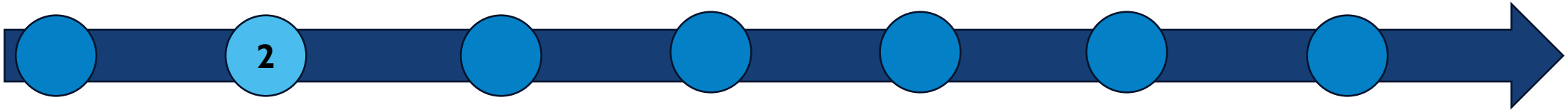
2. Access



Differential	Initial Steps
1. Access bleeding 2. Vessel disruption / perforation	1. Peripheral angio from alternative access 2. Call for peripheral equipment & covered stents to be in the room

Timing is everything

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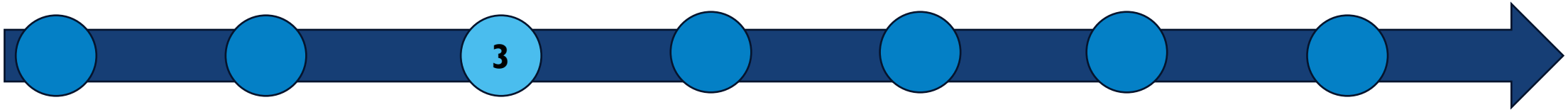
3. Pacing



Differential	Initial Steps
1. Effusion from RV perf 2. Pacing for too long leading to LV spiral 3. Venous bleeding (typically manifests later)	1. Stop pacing! 2. Call for echo

Timing is everything

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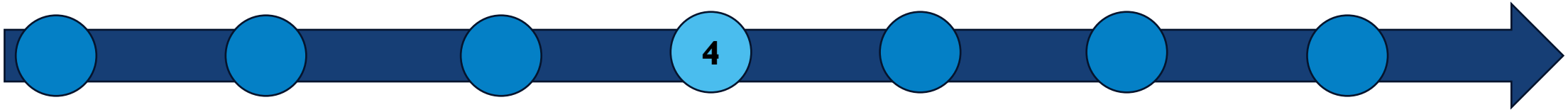
4. Aortography / Angles



Differential	Initial Steps
1. Contrast reaction 2. Growing effusion 3. Coronary embolus / air	1. Call for echo 2. Check skin for rash 3. Quick check of tele

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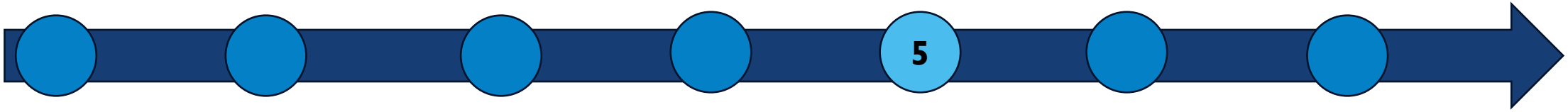
5. Crossing Valve



Differential	Initial Steps
1. Pinning aortic leaflet open / severe AR 2. LV wire perf 3. Severe MR from wire entanglement 4. Occult effusion (temp wire / RV) 5. Carabello's sign	1. Review hemos for suggestion of AR 2. Take tension off wire / catheter system 3. Call for echo

Timing is everything

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6. Valve Deployment

Differential	Initial Steps
1. Effusion until proven otherwise following BEV or pre- / post-dilation SEV 2. Coronary obstruction 3. Valve malplacement / migration 4. Complete heart block 5. Acute stroke 6. Aortic dissection 7. Valve upside down (incorrect load) 8. Contrast / protamine reaction	1. Call for echo 2. Aortogram to look for coronary obstruction or valve migration 3. Review telemetry for CHB, ST Elevation, VT/VF vs PEA 4. Consider ECMO candidacy

Timing is everything

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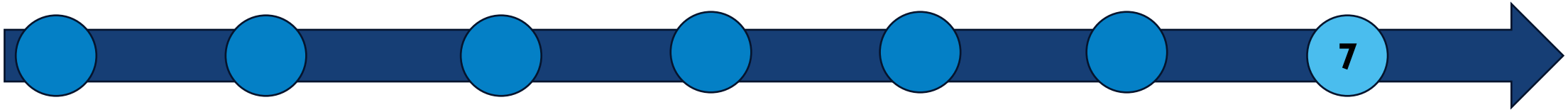
7. Access Closure



Differential	Initial Steps
1. Massive access bleeding 2. RP Bleed no longer covered by sheath 3. Growing effusion 4. Vagal 5. Contrast / protamine reaction	1. Hold pressure if overt bleeding 2. Peripheral angio 3. Call for Coda / peripheral balloon equipment 4. Consider quick follow up echo 5. ECMO is *NOT* a solution for bleeding!

Conclusions

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- Hypotension timing is fundamental to considering mechanism, diagnostics and management

- In almost every circumstance consider pericardial effusion, LV dysfunction & bleeding / vascular injury as the 3 most likely culprits and assess accordingly

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