Cardiogenic Shock Protocol

Cont. from DPH OHCA Protocol

Cardiogenic Shock

IC and CCM shared decision making

Unfavorable features? — No → CCL Activation

CCM available or present in CCL

Severe Symptoms?
- No → Radial Access
- Yes → Femoral Access

→ Coronary Angiography and LV Gram

MCS Indicated?
- Yes → Illiac Angiography
- No

IC and CCM shared decision making for MCS type → Revascularization w/wo MCS

Impella CP Implanted?
- Yes → Right Heart Catheterization → PAPi ≤ 0.9
  - Yes → Impella RP Implant
  - No
- No → Admit to ICU

Admit to ICU

Impella RP implanted?
- Yes → ICU Management
- No → If PAPi ≤ 0.9, notify IC for Impella RP Implant

IC and CCM shared decision for explant

Cardiogenic Shock progress
- Recovery → Explant Impella by CCM
- Inadequate or no recovery → Neurological Recovery?
  - Yes → Transfer for Destination Therapy/Transplant
  - No → End of life discussion with patient family
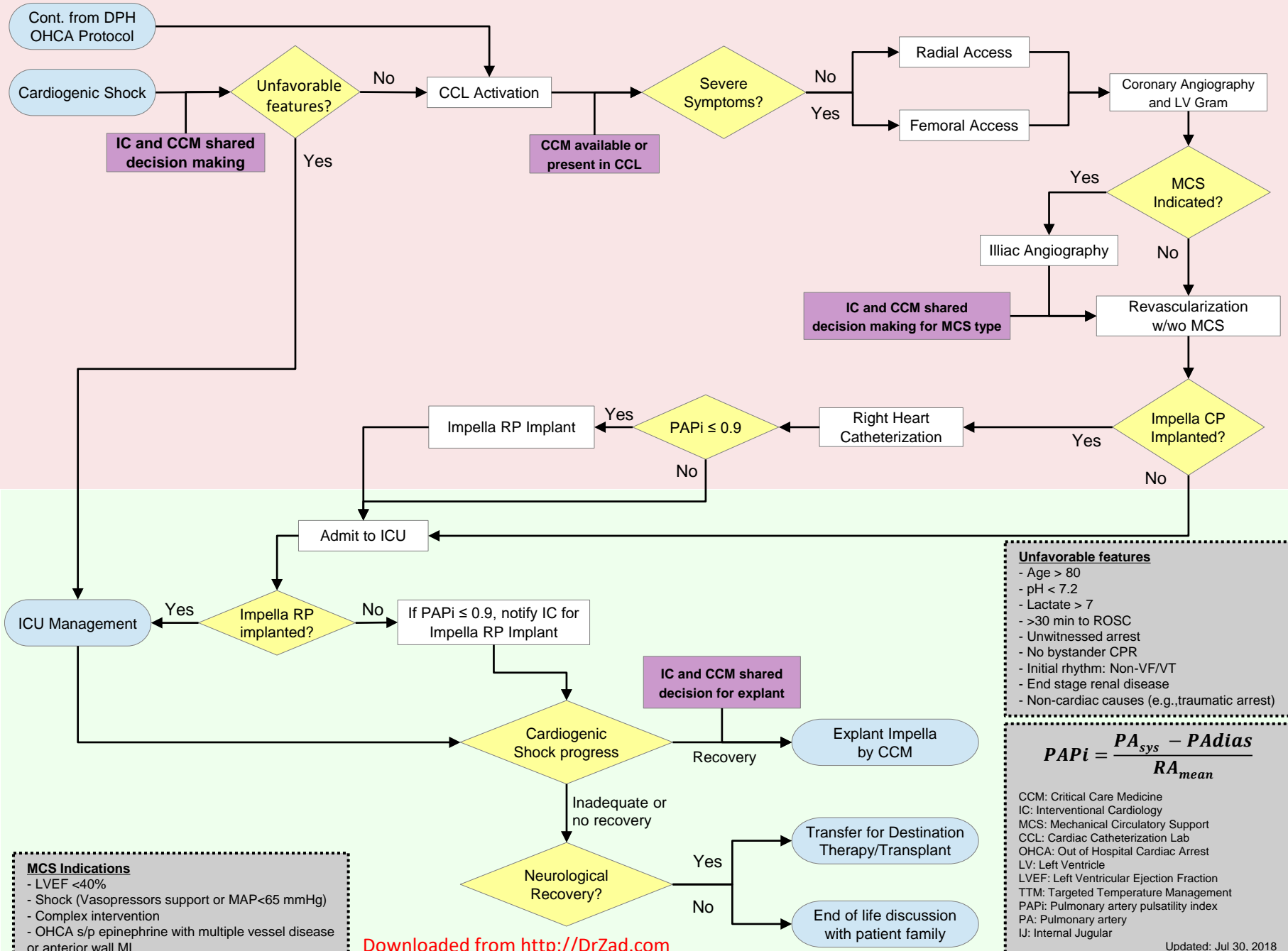
Unfavorable features
- Age > 80
- pH < 7.2
- Lactate > 7
- >30 min to ROSC
- Unwitnessed arrest
- No bystander CPR
- Initial rhythm: Non-VF/VT
- End stage renal disease
- Non-cardiac causes (e.g.,traumatic arrest)

$$PAPi = \frac{PA_{sys} - PAdias}{RA_{mean}}$$

CCM: Critical Care Medicine
IC: Interventional Cardiology
MCS: Mechanical Circulatory Support
CCL: Cardiac Catheterization Lab
OHCA: Out of Hospital Cardiac Arrest
LV: Left Ventricle
LVEF: Left Ventricular Ejection Fraction
TTM: Targeted Temperature Management
PAPi: Pulmonary artery pulsatility index
PA: Pulmonary artery
IJ: Internal Jugular

MCS Indications
- LVEF <40%
- Shock (Vasopressors support or MAP<65 mmHg)
- Complex intervention
- OHCA s/p epinephrine with multiple vessel disease or anterior wall MI

Updated: Jul 30, 2018