

CHD Clinical Practice Algorithm: Tetralogy of Fallot Before Repair¹⁻⁴

Inclusion Criteria:

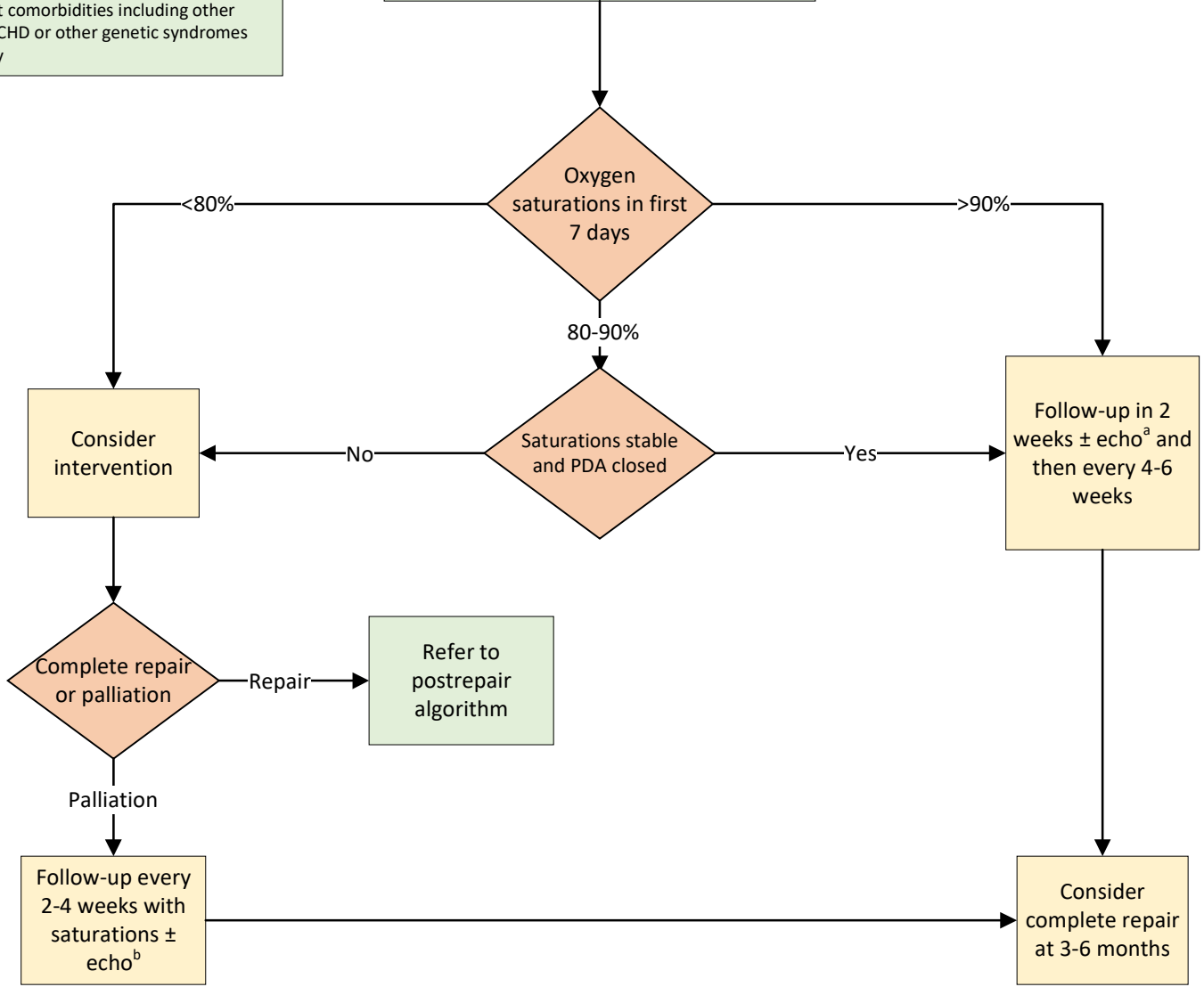
- Diagnosed via echo with isolated TOF
- With or without DiGeorge (22q11.2 deletion) or Down (trisomy 21) syndrome

Exclusion Criteria:

- Patients with MAPCAs
- Patients with absent PV
- Significant comorbidities including other significant CHD or other genetic syndromes
- Pregnancy

Initial standard workup:

- Clinical assessment
- Echo (at diagnosis)
- ECG
- Genetic testing for 22q11 deletion



If concern for hypercyanotic spells, immediate inpatient evaluation for possible intervention is needed

Notes

^a Consider echo with change in saturations, significant dynamic obstruction, PDA monitoring, prior to surgery

^b Consider CMR/CCT if concerned about PA growth

CHD Clinical Practice Algorithm: Tetralogy of Fallot Post Repair⁴⁻⁸

Inclusion Criteria:

- Diagnosed via echo with isolated TOF
- With or without DiGeorge (22q11.2 deletion) or Down (trisomy 21) syndrome

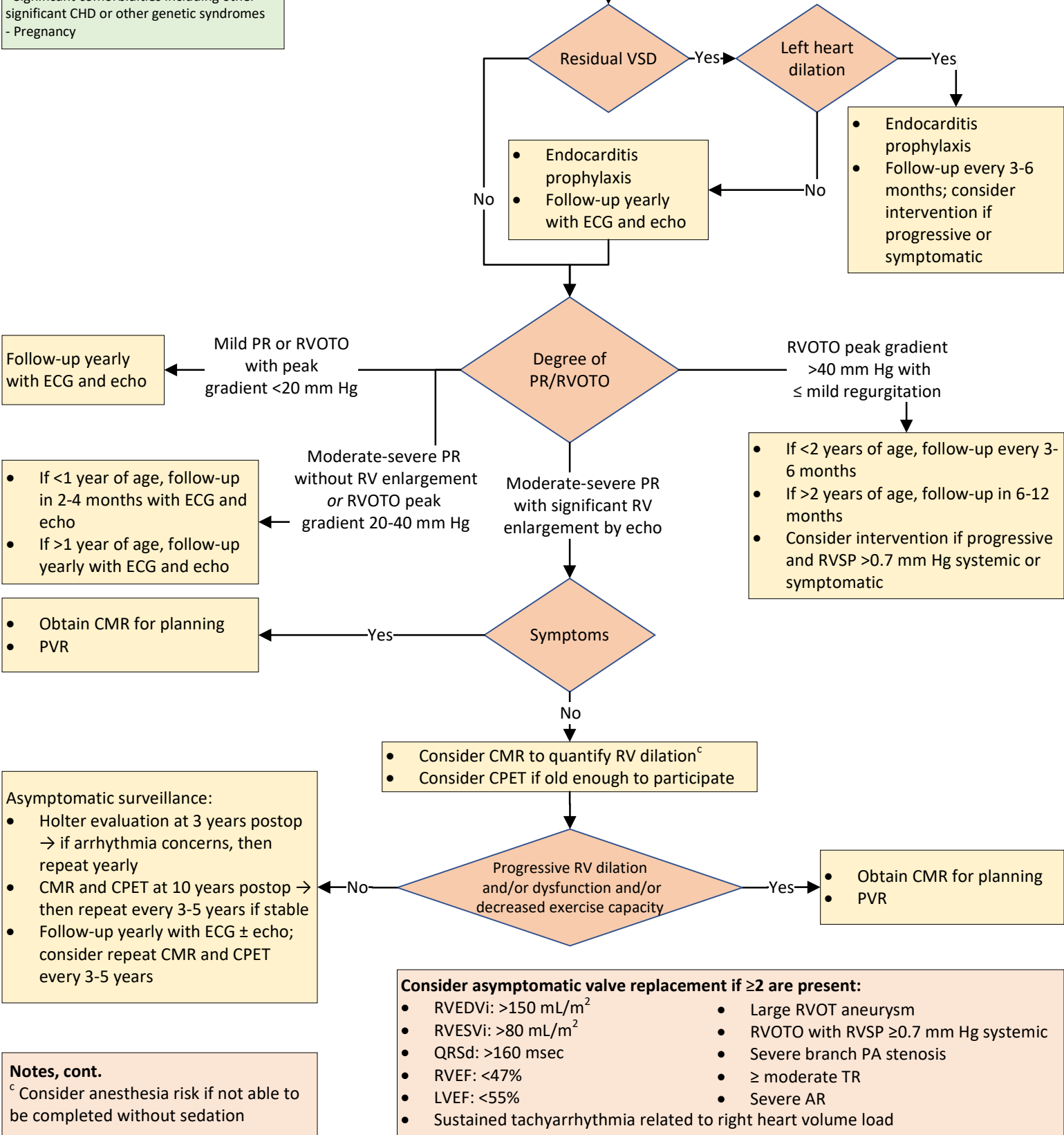
Exclusion Criteria:

- Patients with MAPCAs
- Patients with absent PV
- Significant comorbidities including other significant CHD or other genetic syndromes
- Pregnancy

TOF surgical repair (transannular patch, valve sparing)

Standard postsurgical follow-up:

- ECG, echo, and CXR prior to discharge
- Clinic follow-up in 2-4 weeks ± echo, ± ECG, and CXR



Notes, cont.

^c Consider anesthesia risk if not able to be completed without sedation

Abbreviations

AR = aortic regurgitation; CCT = cardiac computed tomography; CHD = congenital heart disease; CMR = cardiac magnetic resonance; CPET = cardiopulmonary exercise testing; CXR = chest X-ray; ECG = electrocardiogram; echo = echocardiogram; LVEF = left ventricular ejection fraction; postop = postoperatively; MAPCA = major aortopulmonary collateral; PA = pulmonary artery; PDA = patent ductus arteriosus; PR = pulmonary regurgitation; PV = pulmonary valve; PVR = pulmonary valve replacement; QRSd = QRS duration; RV = right ventricular; RVEDVi = right ventricular end-diastolic volume index; RVEF = right ventricular ejection fraction; RVESVi = right ventricular end-systolic volume index; RVOT = right ventricular outflow tract; RVOTO = right ventricular outflow tract obstruction; RVSP = right ventricular systolic pressure; TOF = tetralogy of Fallot; TR = tricuspid regurgitation; VSD = ventricular septal defect.

References

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4. Miller JR, Stephens EH, Goldstone AB, et al.; Expert Consensus Panel. The American Association for Thoracic Surgery (AATS) 2022 expert consensus document: management of infants and neonates with tetralogy of Fallot. *J Thorac Cardiovasc Surg* 2023;165:221-50.
5. Baumgartner H, De Backer J, Babu-Narayan SV, et al.; ESC Scientific Document Group. 2020 ESC guidelines for the management of adult congenital heart disease. *Eur Heart J* 2021;42:563-645.
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