NURSING ROLE IN INTERVENTIONAL of BALLON ATRIAL SEPTOSTOMY

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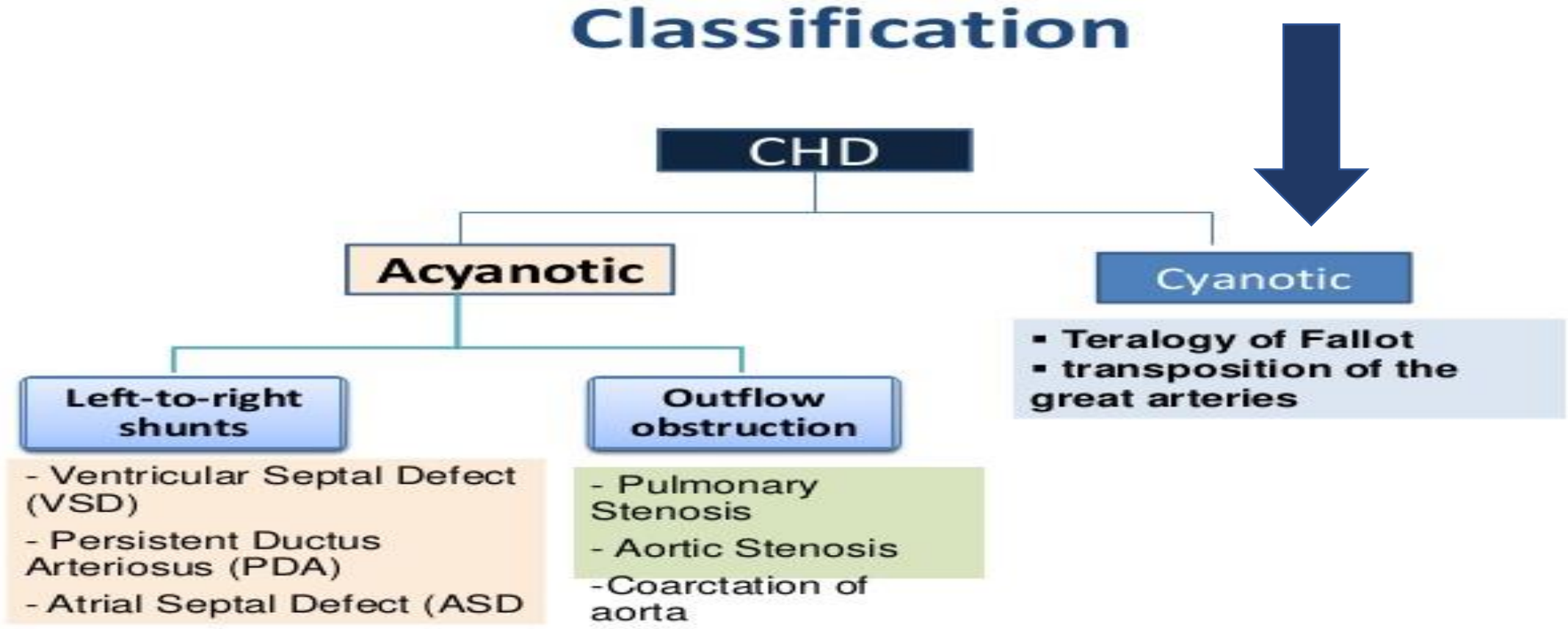
INTRODUCTION



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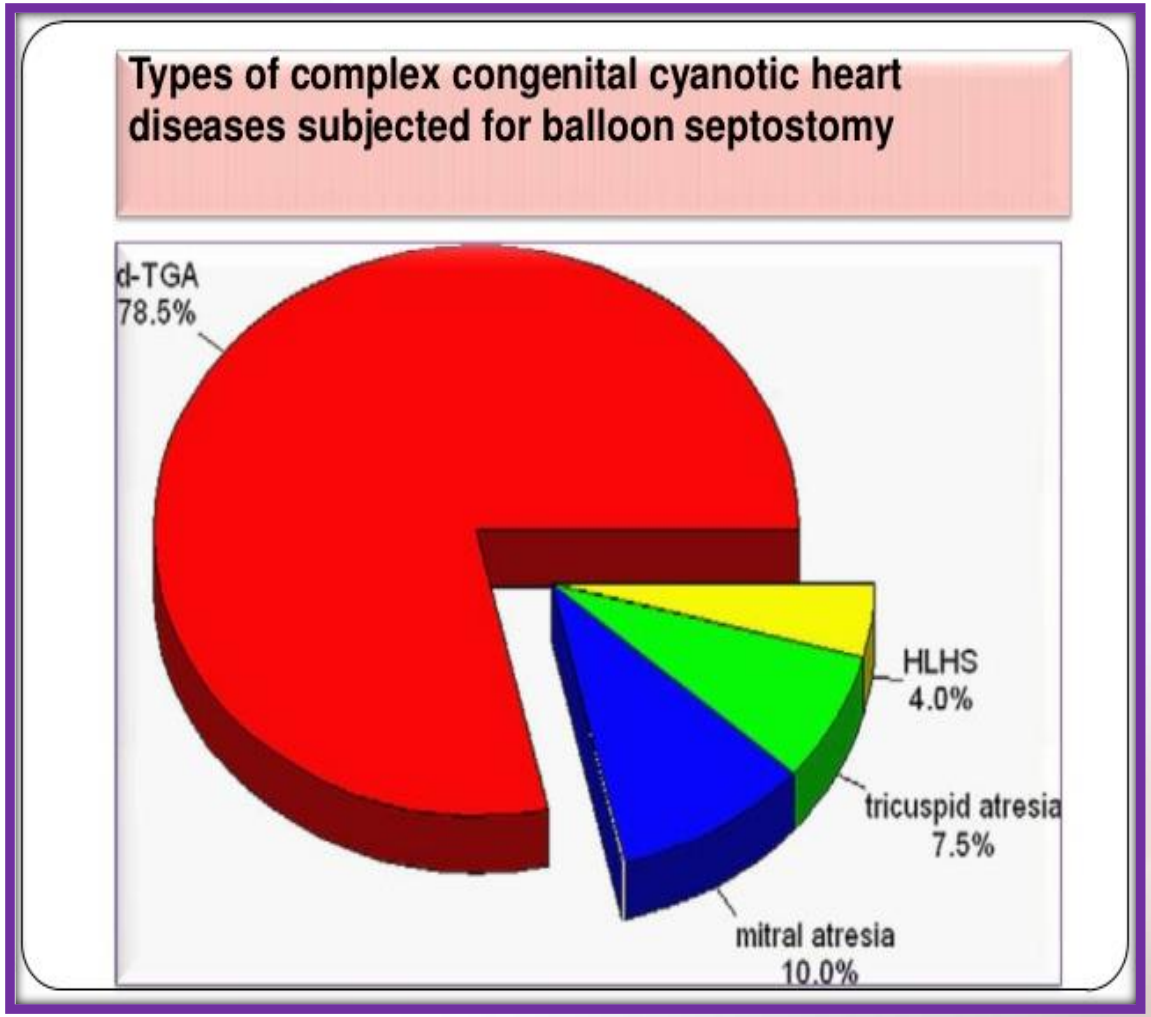
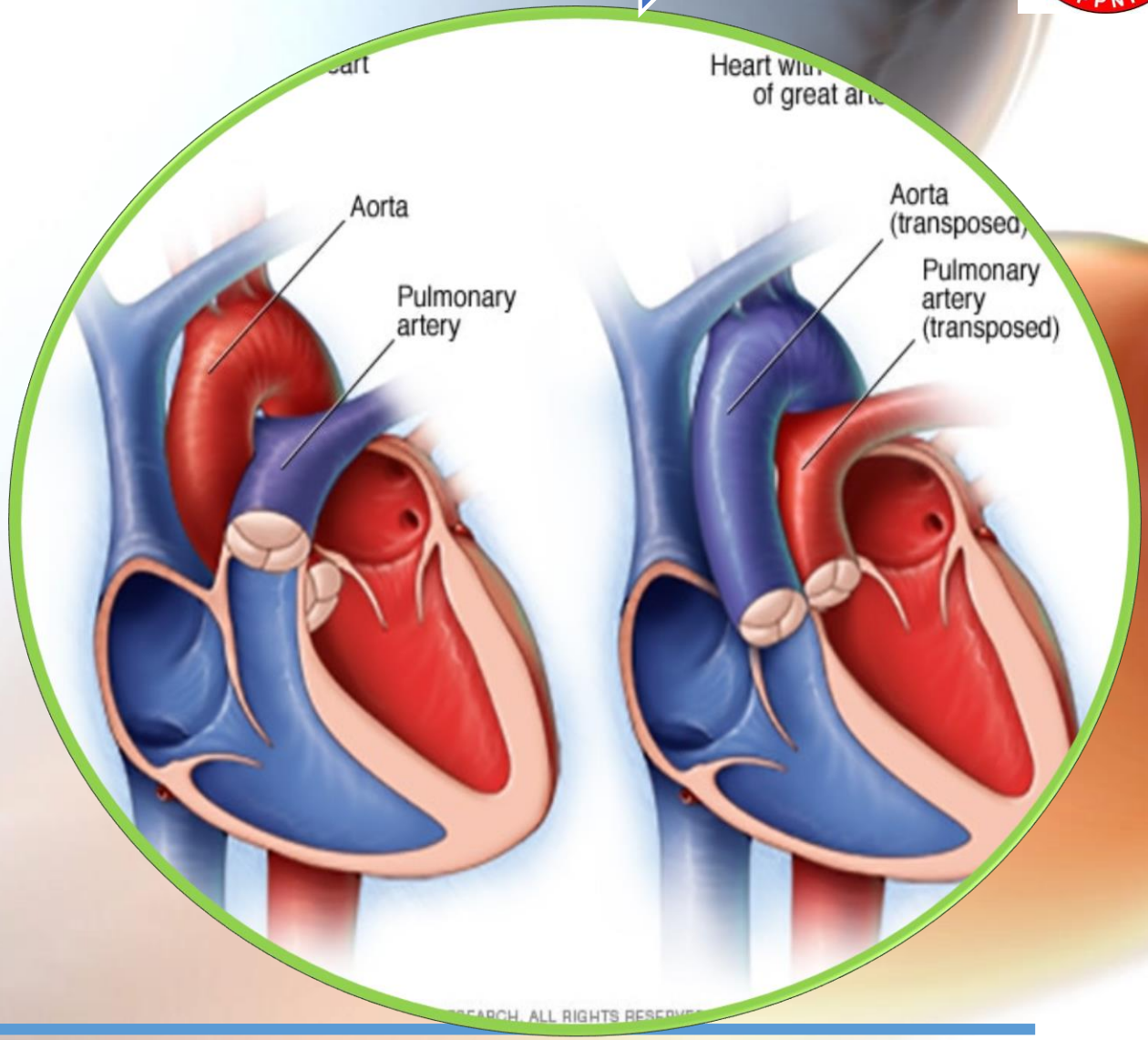
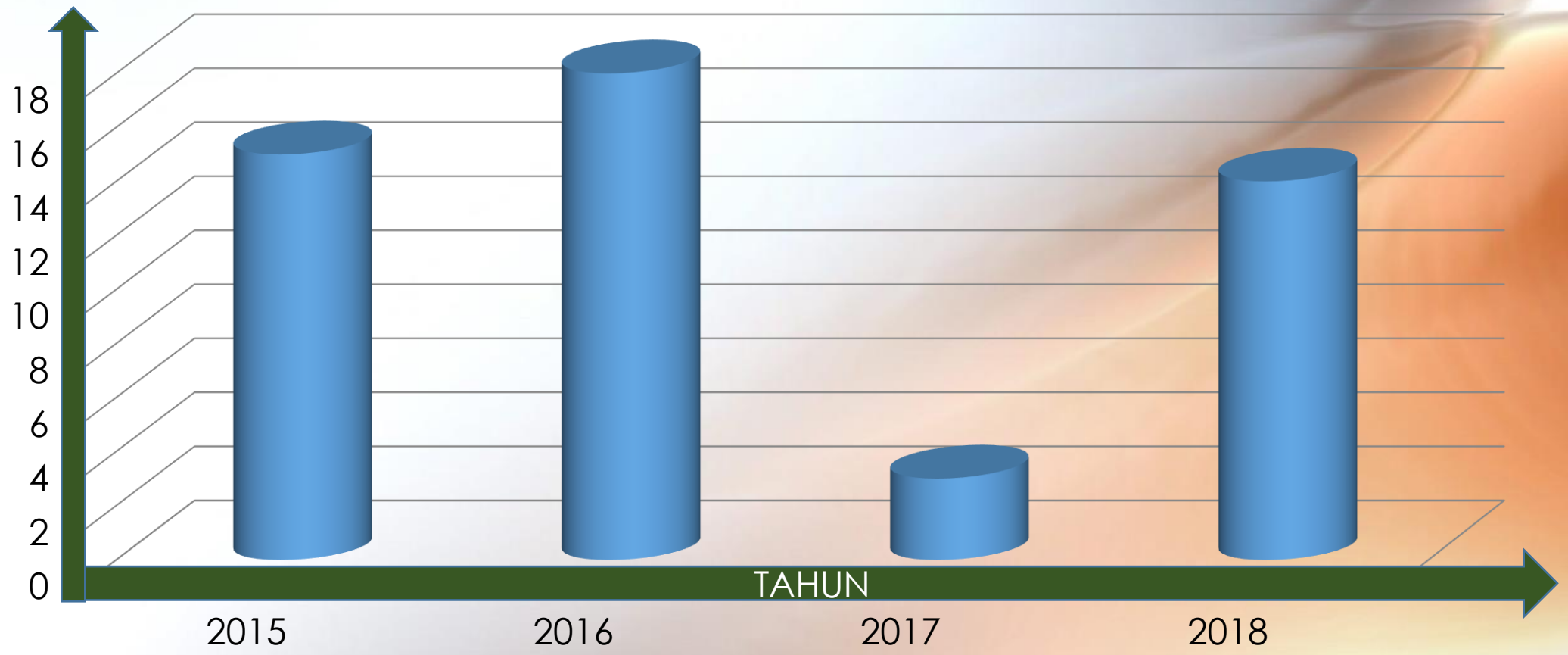
TGA





JUMLAH TINDAKAN BAS di RS JANTUNG DAN PEMBULUH DARAH HARAPAN KITA JAKARTA



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What is Balloon Atrial Septostomy?

Balloon atrial septostomy (BAS) adalah Suatu tindakan intervensi invasif non bedah dengan membuat atau melebarkan lubang sekat antara atrium kanan dan atrium kiri melalui foramen ovale

- ✓ Tindakan ini dilakukan di NICU (dengan Guide Echo) dan Ruang Cath Lab (dengan Guide Fluroskopi)

TUJUAN

The main purposes are to:

- enhance atrial mixing (TGA)
- decompress the left atrium (HLHS)
- to augment the cardiac output in right-side obstruction lesions (TA, PS/PA)
- to off-load the right side of the heart in pulmonary vascular obstructive physiology
- to decompress the right atrium in postoperative RV failure.

When to intervene

- The decision to perform the BAS was made based on the clinical findings of

1. Hypoxia
2. Echocardiographic confirmation of restrictive atrial septal defect, characterized by -

a) The absence of visible communication or
b) Small-size<2.0 mm or
c) Less than one fourth of the total measurement of the interatrial septum measured in the subcostal position.

PERSIAPAN

- Inform consent.
- The Neonatologist on-call is informed and shall attend
- IV access
- Infant is intubated and ventilated prior to procedure
- Fentanyl bolus (10 -20 micrograms/kg) is given prior to procedure; consider second bolus or Fentanyl infusion (1-5 micrograms/kg/hour) if procedure is more than 30 minutes
- Skin disinfectant appropriate to gestation

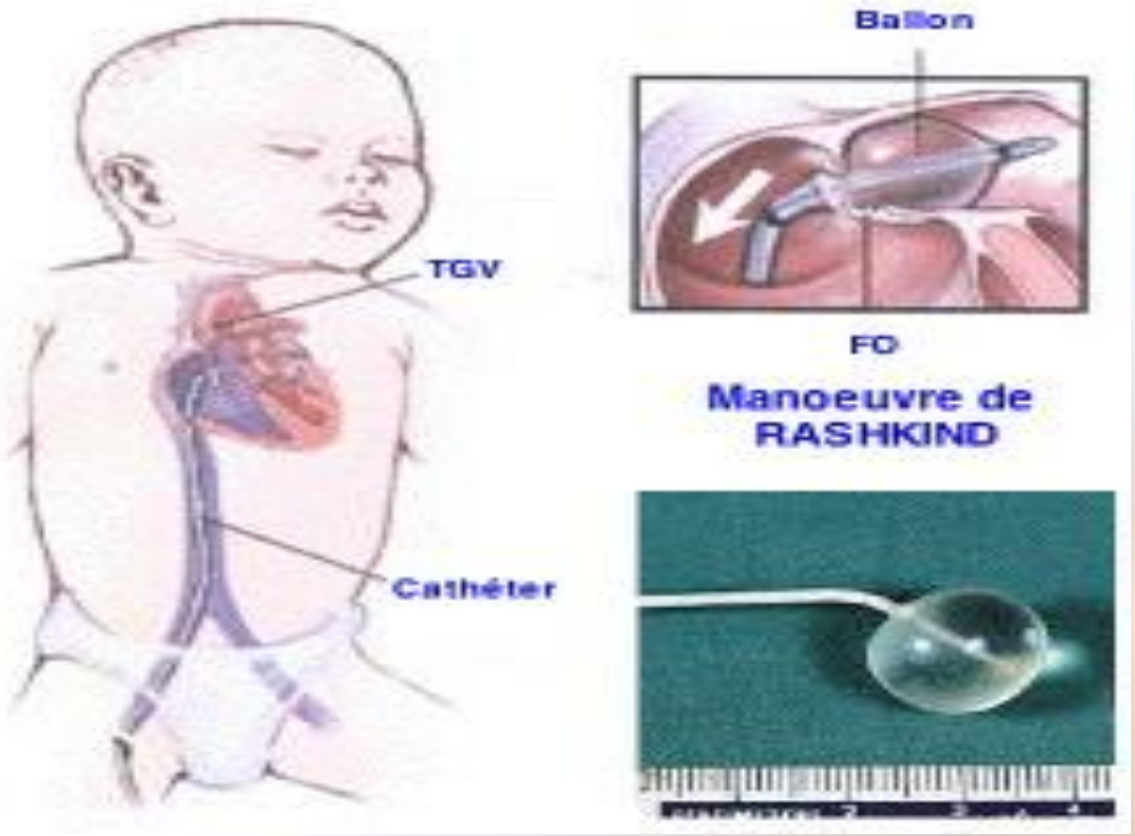
Nursing Responsibilities:

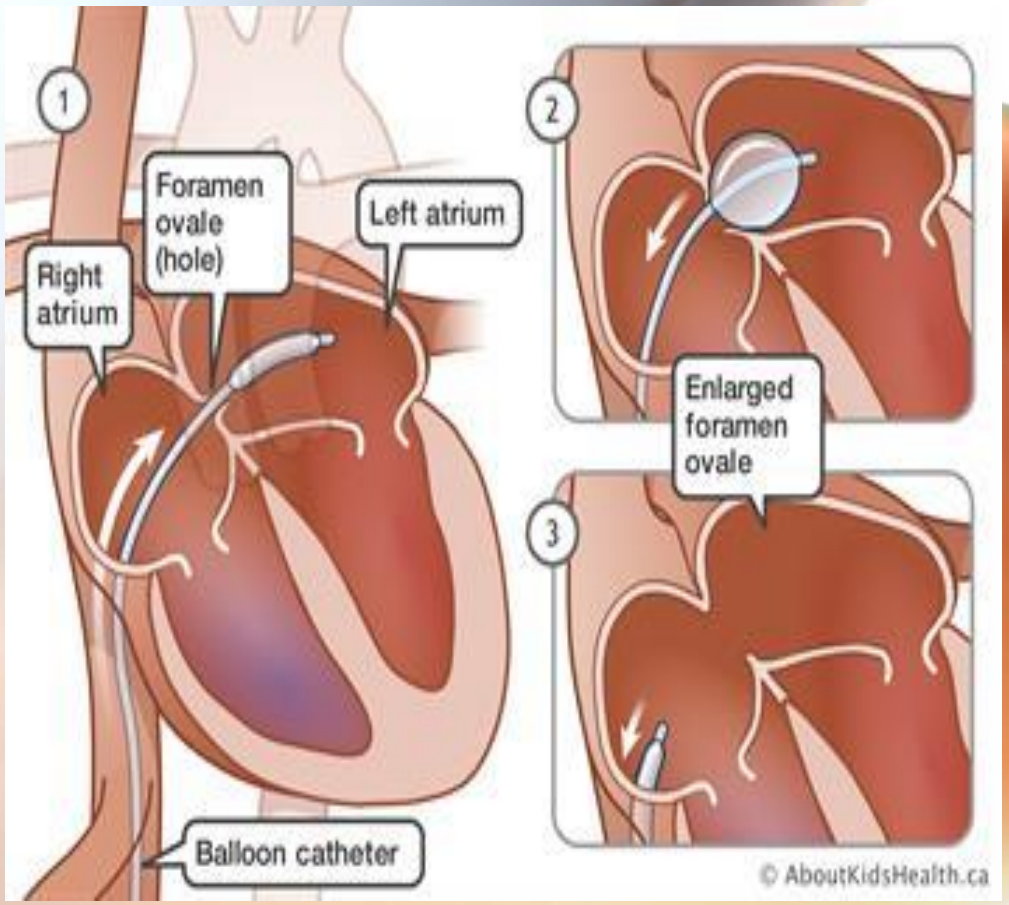
- ✓ Cek laboratorium dan persiapan darah
- ✓Pasien dipuasakan
- ✓ Pertahankan temperature normothermi
- ✓Siapkan obat-obatan analgetik dan sedasi
- ✓Persiapan intubasi dan setting ventilator
- ✓Monitoring Hemodinamik sebelum dan selama prosedure

EQUIPMENT:

- *Monitor Hemodinamik*
- ECHO machine (arranged by cardiology)
- Dressing trolley and clear sterile drape
- Defibrillator
- BAS Trolley : Ballon BAS,Wire,sheath,jarum puncture,spuit

PROSEDUR


TGV
Cathéter
Ballon
FO
Manoeuvre de RASHKIND


1
2
3
Foramen ovale (hole)
Left atrium
Right atrium
Enlarged foramen ovale
Balloon catheter
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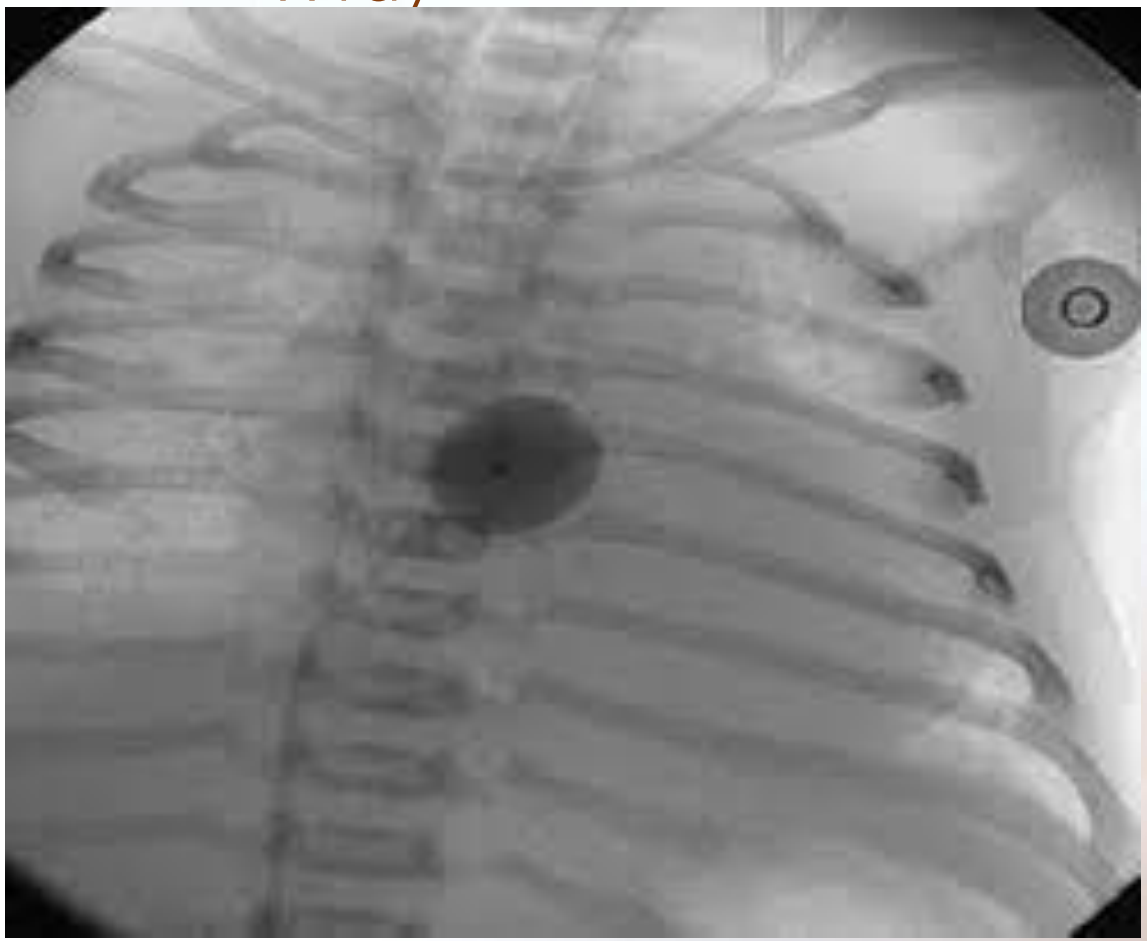
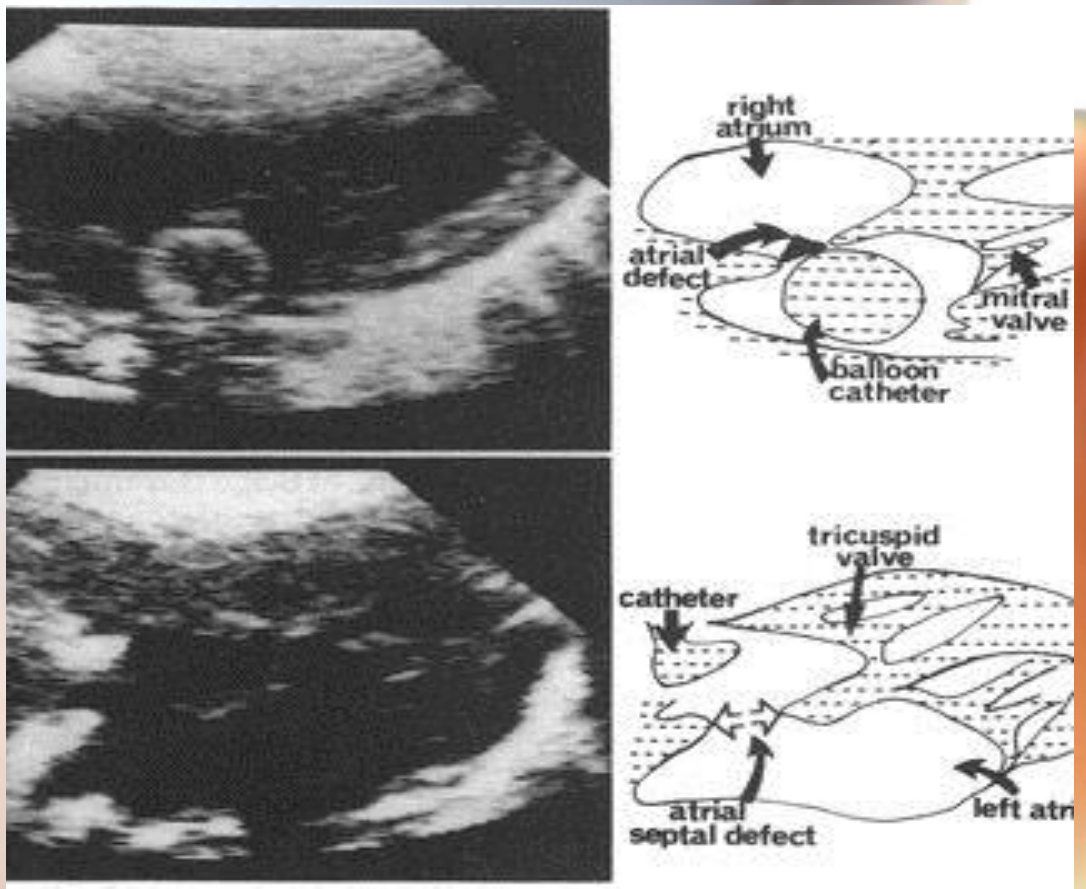
X-ray



echo


right atrium
atrial defect
mitral valve
balloon catheter
tricuspid valve
catheter
atrial septal defect
left atr

Post-Procedure:

A successful procedure will usually result in an increase in oxygen saturation to 80-85%. Intravenous prostaglandin can often be weaned and discontinued following the procedure on the advice of the cardiologist and neonatolog

Postoperative Care:

1. Monitoring
- Cardio-respiratory status
- Blood pressure
- Saturations
- Skin temperatur

2. Maintain ventilation as per orders.

3. Aim to discontinue sedation and extubate if clinically appropriate.

4.Review prostin infusion (as per cardiology team).

5.Observe for signs of bleeding from access sites (umbilical or femoral).

6. Neurovascular observations of lower limbs.

7. Confirm position with an X-ray prior to commencing fluids.

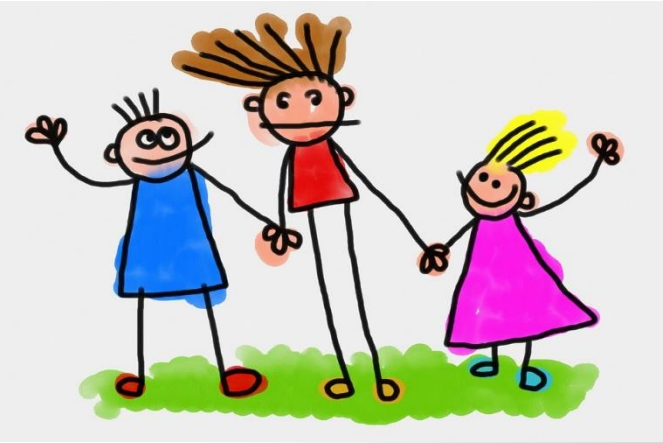
8. Arterial / Capillary blood gas as ordered

Complication	Signs	Action
Bleeding/haematoma[12]	• Oozing from site • Haematoma • Hypertension	• Place pressure over site • Alert medical staff
Thrombosis	• Poor perfusion • Cool peripheries • Absent pedal pulse/s • Pale lower limbs • Limb puffiness/congestion	• Alert medical staff • Consider heparin infusion
Arrhythmias	• Ventricular tachycardia • Ventricular fibrillation	• Alert medical staff • Defibrillation

Complications	Signs	Action
Cardiac Tamponade	• Hypotension • Tachycardia • Tachypnoea • Cool and sweaty • Decreased oxygen saturation • Cardiac arrest	• **Medical emergency** • Pericardial drainage
Cerebral Vascular Accident	• Decreased level of consciousness • Balloon catheter not intact	• Alert medical staff

KESIMPULAN

- BAS Merupakan tindakan emergency untuk meningkatkan saturasi pada bayi dengan kongenital heart disease (sianotik)
- Perawat berperan dalam menentukan keberhasilan prosedur (persiapan,intra prosedur dan post prosedur)



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