EKG of the WEEK
A one month old with some symptoms and physical signs compatible with cardiac disease (tachypnea, FTT and loud P2). The child was born to a 42 years old mother and was also noticed to have increased nuchal translucency on a routine nuchal scan performed at 13 weeks gestation.

1. The first question was to identify the rhythm and the anomalies on the EKG.
2. Name the most likely cardiac malformation associating these clinical and EKG findings.
8 year old boy was brought to ER for chest pain. He has mild developmental delay and ADHD and is on Concerta. He feels the pain mostly at night when he goes to sleep.

1. What is the rhythm?
   1. Sinus arrhythmia
   2. Junctional extrasystole
   3. Premature atrial contractions
   4. Premature ventricular contractions
   5. Second degree AV block Mobitz 1 (Wenckebach)
This baby was brought directly from the delivery room to the NICU due to increased HR noticed immediately after delivery. The baby is alert, crying, breathing spontaneously with good respiratory effort. The HR is 210/min. An UVC is put in place.

1. List at least 2 possible causes for this rhythm and describe how you would differentiate between them.
1. Jervell Lange-Nielsen
2. Second degree AV block Mobitz 1
3. Sinus rhythm
4. Complete atrio-ventricular dissociation
5. Slows atrial fibrila
6. Second degree AV block Mobitz 2
7. Third degree AV block - VII pacemaker

1. Match the numbers of the diagnoses above with the letters of the tracings.
1. Before you begin the test, please identify yourself with one of the following groups

   1. CHEO
   2. DGP McMaster
   3. Sickkids
   4. MacPeds

A one month old boy is brought by his parents to the ER for runny nose, tachypnea and decreased feeding. On exam the baby is alert, afebrile, respiratory rate is 80/min with mild-moderate respiratory distress, arterial saturation are 85%. The precordium is active, 2/6 systolic murmur is heard on auscultation, the liver in normal in size and the peripheral pulses are equally palpated throughout. CBC shows hemoglobin 140 g/l. An EKG and a CXR are done.
2. Enumerate the anomalies encountered on the EKG. What is the rhythm?

3. Considering the findings listed above, should the baby have central cyanosis?
   - 1. Yes
   - 2. No

4. What is the most likely cardiac lesion in this child?
   - 1. Tetralogy of Fallot
   - 2. Tricuspid atresia
   - 3. Large VSD
   - 4. AVSD+TGA
   - 5. Ebstein anomaly