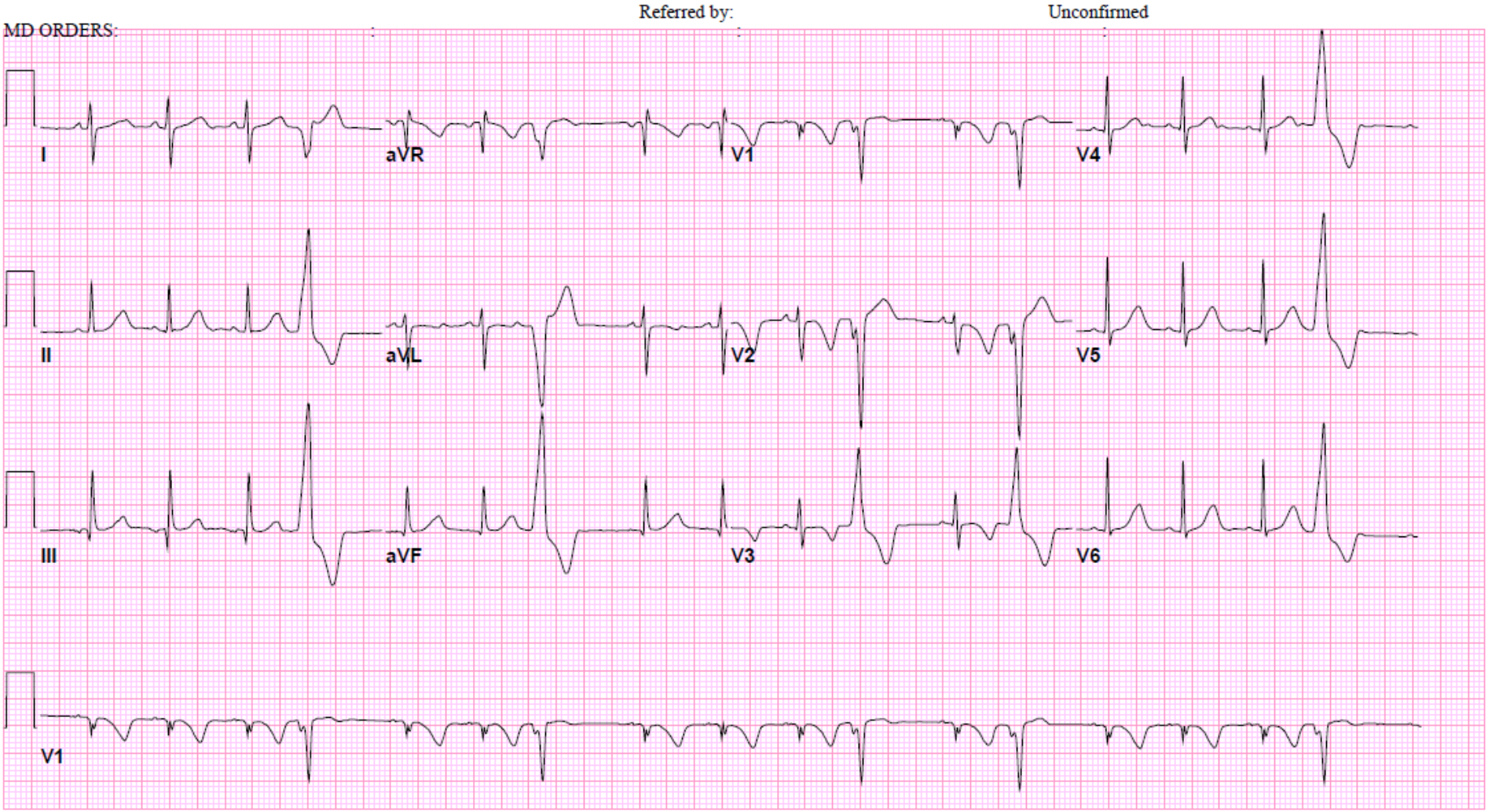
The week's EKG is from a 5 year old girl who presented with an irregular rhythm, during a well child visit. Totally benign past medical history. Here's the questions:

1. What is the abnormality? From what side and in what chamber does the problem originate (hint: look at the conduction patterns in the precordial leads to help)?
2. She later had a Holter monitor, which showed almost 18,000 of these events per day. Troponins were normal. Exercise testing showed they did suppress somewhat with exercise. Does this condition need any further testing (if so, what?) or treatment (if so, what?)?



The week's EKG is from a 5 year old girl who presented with an irregular rhythm, during a well child visit. Totally benign past medical history. Here's the questions:

1. What is the abnormality? From what side and in what chamber does the problem originate (hint: look at the conduction patterns in the precordial leads to help)?

This shows frequent, isolated, monomorphic premature ventricular contractions. The key finding is that they are wide complex, not preceded by a P wave, and followed by a compensatory pause. They have a left-bundle branch block pattern (mostly down in V1 and mostly up in V6), indicating they likely originate from the right ventricle (a common site for an ectopic focus).

2. She later had a Holter monitor, which showed almost 18,000 of these events per day. Troponins were normal. Exercise testing showed they did suppress somewhat with exercise. Does this condition need any further testing (if so, what?) or treatment (if so, what?)?

Too many PVCs can cause a tachycardia-induced cardiomyopathy, so the key test is an echo to assess for function. If function is depressed, children require either medical (anti-arrhythmic) or catheter-directed (ablation) to eliminate the PVCs.

Hope this was helpful!