

Simulation Scenario Template

Appendix A: Laboratory Results

<u>CBC</u> WBC 6.0 Hgb 132 Plt 310 <u>Lytes</u> Na 141 K 4.0 Cl 108 HCO ₃ Cr 80 Glucose 6.1	<u>Cardiac/Coags</u> hsTrop 8 D-dimer 210 INR 1.1 aPTT 37 <u>Other</u> B-HCG neg
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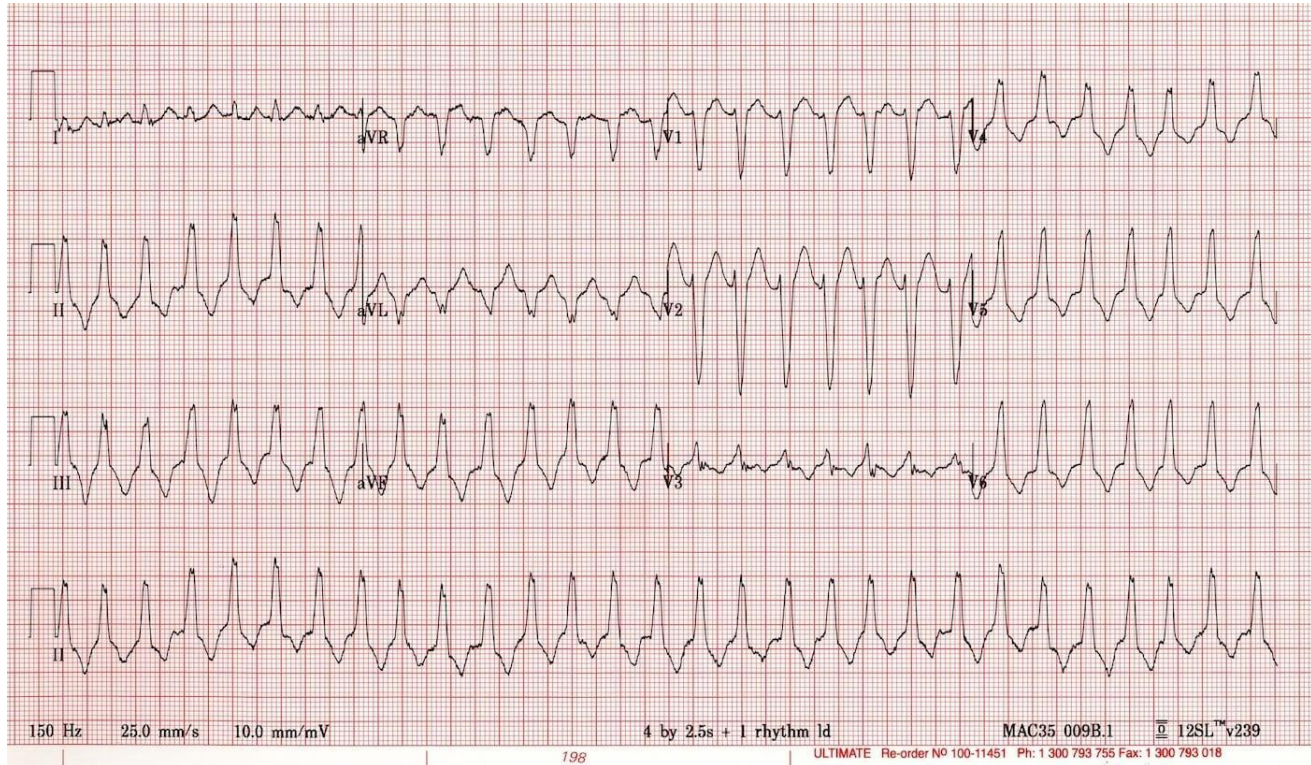


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Appendix B: ECGs, X-rays, Ultrasounds and Pictures

ECG #1

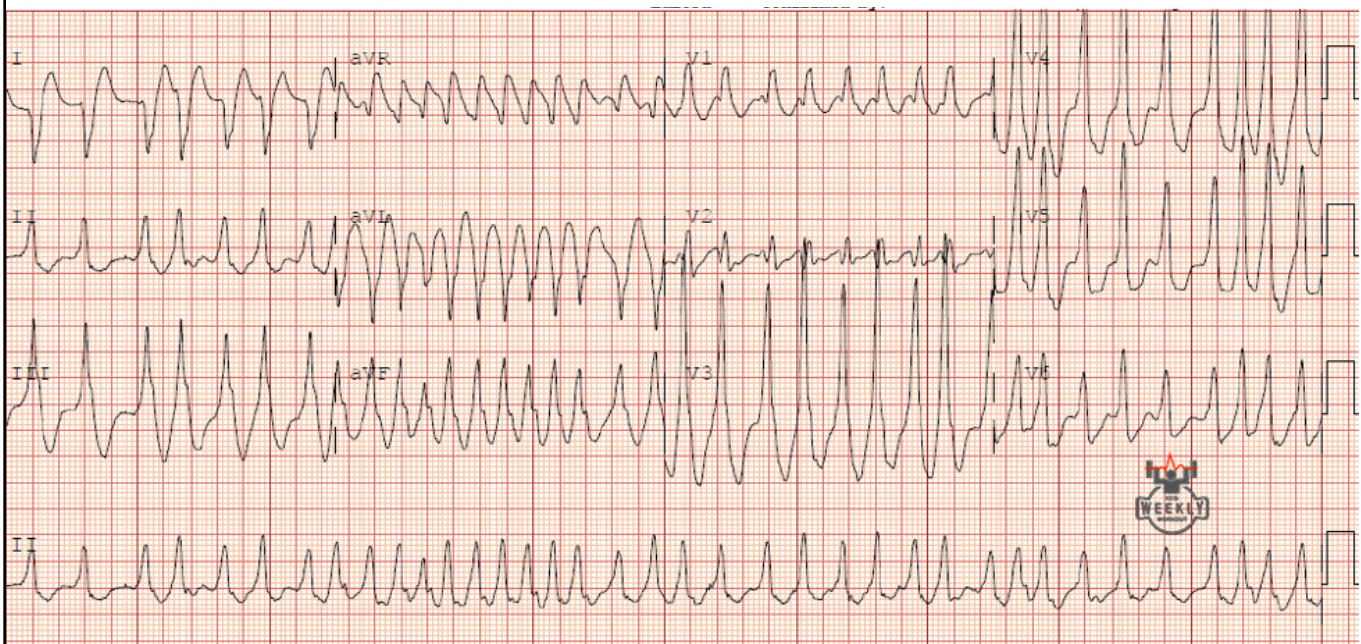
Wide complex regular tachycardia (antidromic AVRT)



Source: <https://litfl.com/wp-content/uploads/2019/04/WCTfeb2012-1.jpg>

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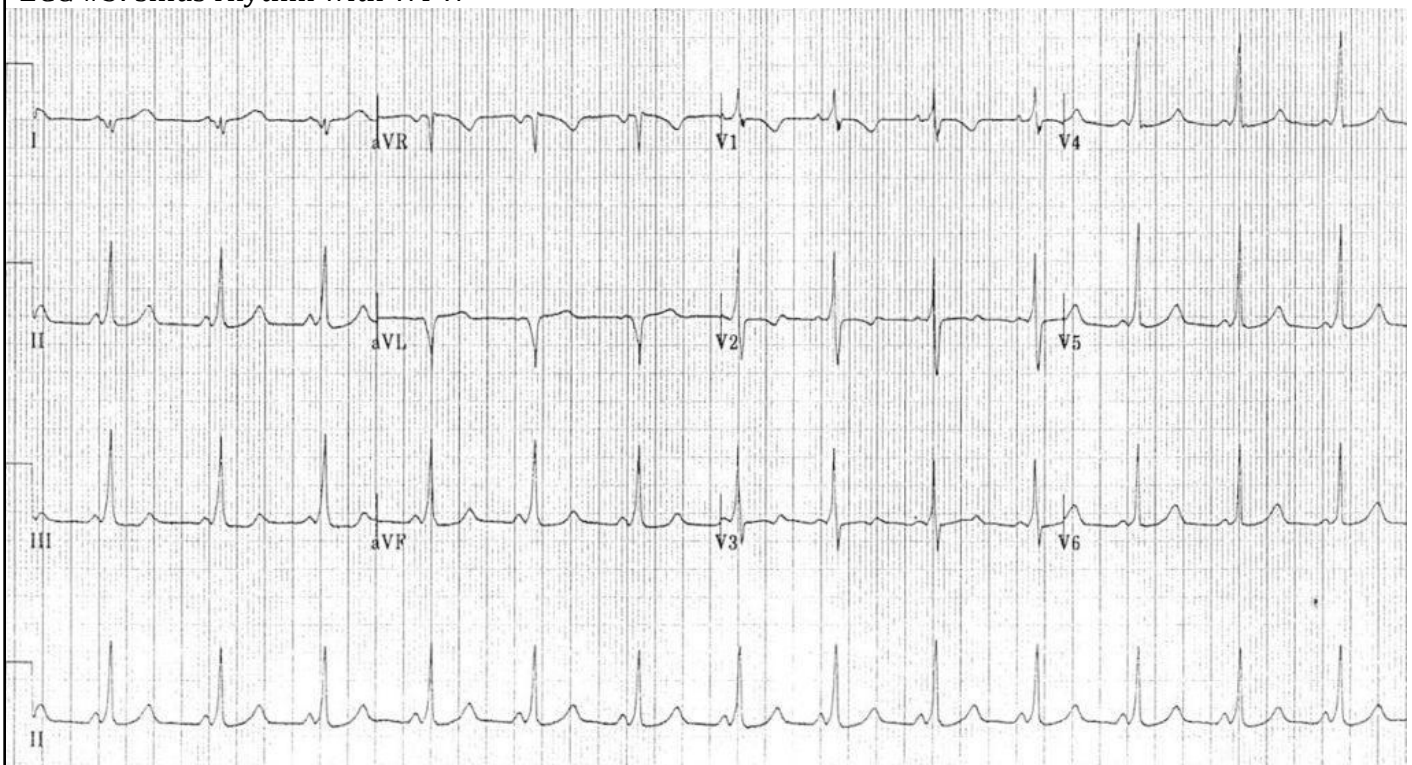
ECG#2: Irregular, polymorphic wide complex tachycardia (afib with WPW)



Source:

<https://www.acc.org/education-and-meetings/patient-case-quizzes/2020/03/09/09/00/treatment-of-wide-complex-tachycardias#>

ECG #3: sinus rhythm with WPW



Source: <https://litfl.com/wp-content/uploads/2018/08/Orthodromic-AVRT-post-adenosine-1-2.jpg>



Simulation Scenario Template

Tachycardia With a Pulse Algorithm



Assess appropriateness for clinical condition.
Heart rate typically $\geq 150/\text{min}$ if tachyarrhythmia.

Identify and Treat Underlying Cause

- Maintain patient airway; assist breathing as necessary
- Oxygen as indicated
- Cardiac monitor to identify rhythm; monitor blood pressure and oximetry

Persistent Tachyarrhythmia Causing:

- Hypotension?
- Acutely altered mental status?
- Signs of shock?
- Ischemic chest discomfort?
- Acute heart failure?

Synchronized Cardioversion*

- Consider sedation
- If regular narrow complex, consider adenosine

Wide QRS?
0.12 second

- IV access and 12-lead ECG if available
- Consider adenosine only if regular and monomorphic
- Consider antiarrhythmic infusion
- Consider expert consultation

- IV access and 12-lead ECG if available
- Vagal maneuvers
- Adenosine (if regular)
- β -Blocker or calcium channel blocker
- Consider expert consultation

Doses/Details

Synchronized Cardioversion**

Initial recommended doses:

- Narrow regular: 50–100 J
- Narrow irregular: 120–200 J biphasic or 200 J monophasic
- Wide regular: 100 J
- Wide irregular: Defibrillation dose (not synchronized)

Adenosine IV Dose:

First dose: 6 mg rapid IV push; follow with NS flush.
Second dose: 12 mg if required

Antiarrhythmic Infusions for Stable Wide-QRS Tachycardia Procainamide IV Dose:

20–50 mg/min until arrhythmia suppressed, hypotension ensues, QRS duration increases $> 50\%$ or maximum dose 17 mg/kg given.
Maintenance infusion: 1–4 mg/min.
Avoid if prolonged QT or CHF.

Amiodarone IV Dose:

First dose: 150 mg over 10 minutes.
Repeat as needed if VT recurs. Follow by maintenance infusion of 1 mg/min for first 6 hours.

Sotalol IV Dose:

100 mg (1.5 mg/kg) over 5 minutes.
Avoid if prolonged QT.