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| **Case Title** | Arrhythmia |
| **Scenario Name** | Adam Flitten |

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| **Learning Objectives (3 or more)** [Use action words](http://ubccpd.ca/sites/ubccpd.ca/files/Accreditation_Learning%252520Objectives_%252520Verbs.pdf) | |
| **Knowledge:**   1. Approach to Cardiogenic Shock 2. Management of tachyarrythmias - stable vs unstable, medical vs electrical 3. Aflutter -rate control vs rhythm, anticoagulation | |
| **Skills:**   1. Demonstrate cardioversion 2. Review ACLS guidelines | |
| **Attitude/Behaviours**   1. Demonstrate Team skills 2. Demonstrate Situational awareness 3. Demonstrate Graded Assertiveness | |
| **Scenario Environment** | |
| **Location** | ER |
| **Monitors** | Cardiac, ECG, pacer, IV |
| **Props/Equipment** | ACLS guidelines |
| **Make-up/Moulage** | None |
| **Potential Distractors** | Wife, stating he didn’t want to to”honey do list” |

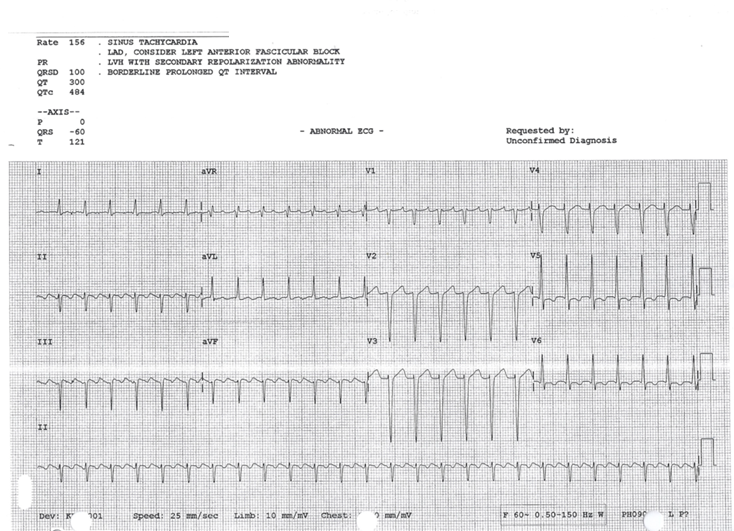
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| **Case Introduction:** |
| 49 year old male presents to ER with fatigue x 3 days, no CP ,no SOB. |

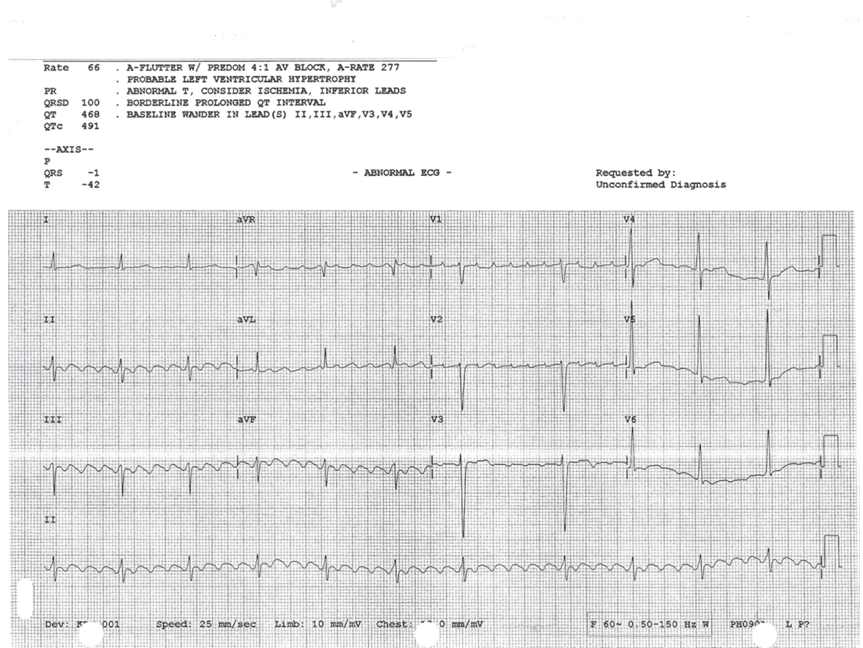
| **Patient Parameters** | **Effective Management** | **Notes** |
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| **Phase 1: Stable Tachycardia**  **Condition:** Stable.  Looks fatigued and worried, not toxic or distressed  **Initial Assessment**   * **Heart Rhythm:** Sinus Tachycardia * **HR:** 160 * **BP:** 111/92 * **RR:** 23 * **SP02:** 94% on RA * **T:** 36.7 C * **Glucose:** 6.3 * **Chest:** Clear * **CNS:** GCS 15 * **CVS:**  N * **GI:** Abd soft, nontender, BS x 4 | 1. **Take a focused history** (see Notes column) 2. **Medical Management**  * Cardiac monitor placed * ECG * Cardiac labs * Blood glucose * Other causes of tachycardia? Dehydration, hypoxia, fever, sepsis, H’s & T’s ? | 1. **Focused history**  * EMS Vitals done? NO   **SHx**   * no cocaine * 4-6 beer/week * MJ occas * 20pk year smoker   **PMHx**   * MIBI/Bruce 2006 Neg * GERD * dyslipidemia   **Meds**   * Prevacid * Lipitor   **Allergies**   * none |
| **Phase 2: Unstable Atrial Flutter**  **Condition:** Unstable  More pale, increased RR, clammy  **Physicial Examination**   * **Heart Rhythm:** Atrial flutter (4:1) * **HR:** 66 * **BP:** 98/67 * **RR:** 32 * **SP02:** 92% * **Chest:** clear * **CNS:** GCS 15 * **Integ:** Diaphoretic | 1. **Patient Reassessment** (see Notes column) 2. **Medical Management**  * Patient Reassessment (see Notes column) * IV access, N/S bolus * Rate control * ACLS algorithms * ? cardioversion * ? inotropes | 1. **Patient Reassessment**   **Airway**   * patent   **Breathing**   * spontaneous * chest clear   **Circulation**   * Rate control 66 - 4:1 aflutter * Hypotensive |

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| **Expected Patient Management** | **Debriefing Points** |
| 1. **Student** 2. **R1** 3. **Senior IM resident** |  |

**References:**

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| **Test** | **DATE/TIME here** | **Flag** (H or L) | **Reference** |
| **CBC** | | | |
| WBC | 7.5 |  | 3.5 – 10.8 10^9/L |
| RBC | 4.8 |  | 4.3 – 5.7 10^12/L |
| Hgb | 161 |  | 130 – 170 g/L |
| HCT | 0.47 |  | 0.37 – 0.47 L/L |
| Platelets | 203 |  | 150 – 400 10^9/L |
| MCV | 97.8 |  | 84.0-98.0fL |
| MCH | 33.3 |  | 28.3-33.5 pg |
| MCHC | 341 |  | 329-352 g/L |
| RDW | 14.4 |  | 12.0-15.0% |
| Neutrophils | 5.4 |  | 1.2-6.0 10^9/L |
| Lymphocytes | 1.7 |  | 0.6-3.1 10^9/L |
| Monocytes | 0.3 |  | 0.1-0.9 10^9/L |
| Eosinophils | 0 |  | 0.0-0.5 10^9/L |
| Basophils | 0 |  | 0.0-0.2 10^9/L |
| **Chemistry** | | | |
| Na | 142 |  | 137 – 145 mmol/L |
| K | 4.2 |  | 3.5 – 5.0 mmol/L |
| Cl | 110 | **H** | 98 – 107 mmol/L |
| CO2 | 19 | **L** | 22 – 30 mmol/L |
| AGAP | 13 |  | 5 – 14 mmol/L |
| Urea | 6.2 |  | 2.5 – 6.1 mmol/L |
| Creat | 98 |  | 62 – 106 umol/L |
| GFR Est | 71 |  | > 60 ml/min |
| Glucose - Random | 6.5 |  | 3.0 – 11.0 mmol/L |
| Mg | 0.76 |  | 0.7 – 1.00 mmol/L |
| CK | 130 |  | 5 – 130 U/L |
| AST | 36 |  | 15-45 U/L |
| LDH | 620 | **H** | 313-618 U/L |
| ALT | 57 |  | 10-65 U/L |
| Troponin | 0.09 | **H** | <0.03 mcg/L |
| **Coags** |  |  |  |
| INR | 1.2 |  | 0.9 – 1.2 |
| PTT | 29 |  | 28 – 38 s |
| **ABGs** | | | |
| **Arterial** | | | |
| pH |  |  | 7.35- 7.45 |
| pCO2 |  |  | 35 – 45 mmHg |
| PO2 |  |  | 80-100 mmHg |
| BE |  |  | -2.0 to +2.0 mmol/L |
| HCO3 |  |  | 22 – 26 mmol/L |
| O2 Sat |  |  | 95 – 100% |

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