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| **Case Title** | Myocardial Infarction – VF Arrest |
| **Scenario Name** | ACLS 1 |

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| **Learning Objectives -** [**Use action words**](http://ubccpd.ca/sites/ubccpd.ca/files/Accreditation_Learning%20Objectives_%20Verbs.pdf) | |
| **Knowledge:**   1. Apply basic ACLS protocols 2. Demonstrate management of V. Fib Arrest 3. Demonstrate initial management of chest pain 4. Demonstrate initial management of Acute MI | |
| **Skills:**   1. Perform high quality CPR 2. Perform defibrillation 3. Perform intubation 4. Demonstrate EKG interpretation | |
| **Attitude/Behaviours**   1. Demonstrate Team skills 2. Demonstrate Situational awareness 3. Demonstrate Graded Assertiveness | |
| **Scenario Environment** | |
| **Location** | ED |
| **Monitors** | Telemtry/Crash Cart/defibrillator |
| **Props/Equipment** | IV, Meds  Airway equipment  EKG  STEMI Protocol from ED  ACLS Algorithms on hand |
| **Make-up/Moulage** | None |
| **Potential Distractors** | None |

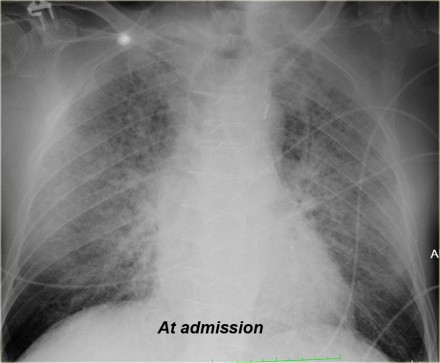
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| **Case Introduction:** |
| 58 y.o. Caucasian male presenting with chest pain at work during argument with co-worker. 45 minutes of central chest pain and SOB. |

| **Patient Parameters** | **Effective Management** | **Notes** |
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| **Phase 1: Unstable Chest Pain/ Acute MI**  **Condition:** Unstable  Pale and diaphoretic. Looks unwell.  **Initial Assessment**   * **Heart Rhythm:** Sinus Tachycardia with ST changes * **HR:** 132 * **BP:** 90/60 * **RR:** 24 * **SP02:** 92% on R/A * **T:** 36.6 C * **Glucose:** 6.5 * **Chest:** Crackles to bases of lungs bilat * **CNS:** GCS 15 * **CVS:** Heart sounds normal * **GI:** Abd non-tender * **Weight:** 220 lbs * **Height:** 5’9” | 1. **Take a focused history** (see Notes column) 2. **Medical Management**  * ECG, goal within 10 mins * Cardiac monitor * Oxygen * IV access (x2 NOT right wrist) * Cardiac labs * Meds:   + ASA 320 mg chewed   + Nitro spray   + Morphine IV if discomfort not relieved by Nitro   *\*Be mindful of BP & area of infarct with Nitro/ Morphine* | 1. **Focused history**   Was having argument with co-worker when sudden central chest pain developed. Ongoing x 45 mins. SOB. Denies cardiac history. No regular extertional activities or exercise.  **PMHx**   * Smoker * HTN * High Cholesterol * Gout   **Meds**   * HCTZ * Ramipril * Atorvastatin * Allopurinol * Indomethacin PRN   **Allergies**   * None |
| **Phase 2: V. Fib Arrest**  **Condition:** Coding  Patient unresponsive, eyes closed, apneic  **Physical Examination**   * **Heart Rhythm:** Ventricular Fibrillation * **BP:** no reading * **RR:** apneic * **CNS:** GCS 3 | 1. **Patient Reassessment** (see Notes column)-*Recognizes change in condition* 2. **Medical Management:**  * CPR * Intubate patient * Defibrillate and follow ACLS Protocol | 1. **Patient Reassessment**   **Airway**   * Obstructed – tongue * Accepts oral a/w & intubation   **Breathing**   * Apneic – must be bagged   **Circulation**   * Absent pulses – must do CPR |
| **Phase 3: PEA Arrest**  **Condition:** Coding  Patient unresponsive, eyes closed, apneic  **Physical Examination**   * **Heart Rhythm:** PEA * **HR:** 100 * **BP:** no reading * **RR:** apneic * **CNS:** GCS 3 | 1. **Patient Reassessment** (see Notes column)-*Recognizes change in condition* 2. **Medical Management:**  * CPR * Intubate patient if not already done so * Follow PEA Algorithm:   + Epi 1 mg Q3-5 mins   + Review H’s & T’s   **Consequences of ineffective management**   * If ACLS guidelines not followed correctly remain in PEA or progress to asystole. * If ACLS guidelines followed correctly, progress to Phase 4 (ROSC) | 1. **Patient Reassessment**   **Airway**   * Obstructed, must intubate if not already done so   **Breathing**   * Apneic, must bag   **Circulation**   * Absent pulses, must continue CPR |
| **Phase 4: ROSC**  **Condition:** Unstable  ROSC, rejects oral a/w, spontaneous resps  **Physical Examination**   * **Heart Rhythm:** Sinus Tachycardia * **HR:** 110 * **BP:** 100/50 * **RR:** 12 on ventilator * **SpO2:** 96% vented on high oxygen * **T:** 36.6 C | 1. **Patient Reassessment** (see Notes column)-*Recognizes change in condition* 2. **Medical Management:**  * Cardiology Consult/ Cath Lab * STEMI Check list * Post Arrest Care | 1. **Patient Reassessment**   **Airway**   * Starts fighting ETT   **Breathing**   * Some spontaneous effort, allows assistance between and with own resps   **Circulation**   * ROSC |

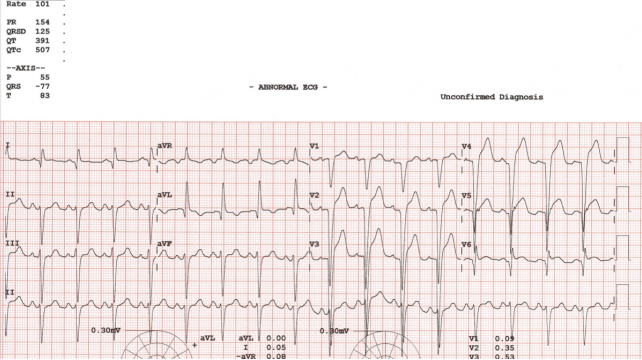
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| **Expected Patient Management** | **Debriefing Points** |
| 1. **Student** 2. **R1** 3. **Senior IM resident** |  |

**References:**

**X-RAYS**



**EKGs**

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