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| **Case Title** | Home Invasion |
| **Scenario Name** | GSW to Buttock with Massive Transfusion |

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| **Learning Objectives -** [**Use action words**](http://ubccpd.ca/sites/ubccpd.ca/files/Accreditation_Learning%20Objectives_%20Verbs.pdf) | |
| **Knowledge:**   1. Management of Hypovolemic/Hemmorhagic Shock 2. Application of the Massive Transfusion Protocol | |
| **Skills:**   1. Resuscitation of a Hypotensive Bleeding patient with a GSW 2. Intubation 3. IV access and use of rapid transfusers, pressure bags etc. 4. Application of Massive Transfusion Protocol 5. Team leadership, Communication and Collaboration with Trauma Team | |
| **Attitude/Behaviours:**   1. Demonstrate Team skills 2. Demonstrate Situational awareness 3. Demonstrate Graded Assertiveness | |
| **Scenario Environment** | |
| **Location** | Emergency Trauma 3 |
| **Monitors** | Emergency Telemetry, NIBP, Sats |
| **Props/Equipment** | Blood box, Lines, Ranger, Pressure bags, TXA monograph |
| **Make-up/Moulage** | Buttock Wound |
| **Potential Distractors** | None |

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| **Case Introduction:** |
| **Pre-Hospital Notification**: 65 year old male with GSW to Left Buttock and Hypotension. |

| **Patient Parameters** | **Effective Management** | **Notes** |
| --- | --- | --- |
| **Phase 1: GSW, Hypotension**  **Condition:** Unstable  **Initial Assessment**   * **Heart Rhythm:** Sinus Tachycardia * **HR:** 160 * **BP:** 60/40 * **RR:** 20 * **SP02:** 96% on RA * **T:** 36.0 C * **Glucose:** 6.0 * **Chest:** Normal, clear * **CNS:** Alert * **CVS:** Weak peripheral pulses * **GI:** AbdNon tender * **GU:** 3 cm Entrance Wound to left buttock * **Weight:** 180 * **Height:** 6 ft | * Establish Team * Prepare after prehospital information * Assess patient and obtain history from EHS * Primary survey * Establish priorities * IV lines – Multiple * IV fluids * Blood – PRBCS * Use rapid transfusers and pressure bags * Activate Consultants – General Surgery * Consider Radiology/Interventional Radiology, CT Scan   **Consequences of ineffective management**   * Continues to decline BP * PEA arrest * Death |  |
| **Phase 2: Remains Hypotensive**  **Condition:** Unstable  **Physical Examination**   * **Heart Rhythm:** Sinus Tachycardia * **HR:** 160 * **BP:** 80/40 * **RR:** 20 * **SP02:** 94% * **T:** 36.0 C * **Chest:** Resps shallow pre-intubation * **CNS:** Slightly confused * **GU:** Normal * **Integ:** One wound only. | * More Blood Products * Massive Transfusion Protocol * Airway and Ventilation – Intubation with appropriate drugs. Ketamine, Etomidate, Rocuronium   **Consequences of ineffective management**   * Hypotension, Desaturation, PEA and Death | * General Surgery in OR and unavailable * Vascular Surgery was called and was available * Eventual Stabilization and patient able to go to CT scanner and then to OR |

**Insert more lines if more phases required.**

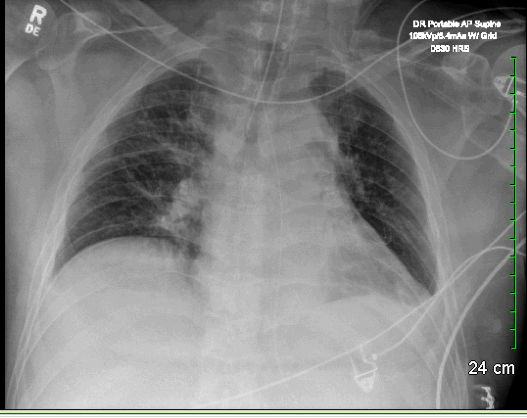
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| **Expected Patient Management** | **Debriefing Points** |
| 1. **Student** 2. **R1** 3. **Senior IM resident** |  |

**References:**

[**Interior Health Massive Hemorrhage Protocol Tool Kit**](http://insidenet.interiorhealth.ca/clinical/Documents/ctpm%209.0.pdf)

**X-RAYS**

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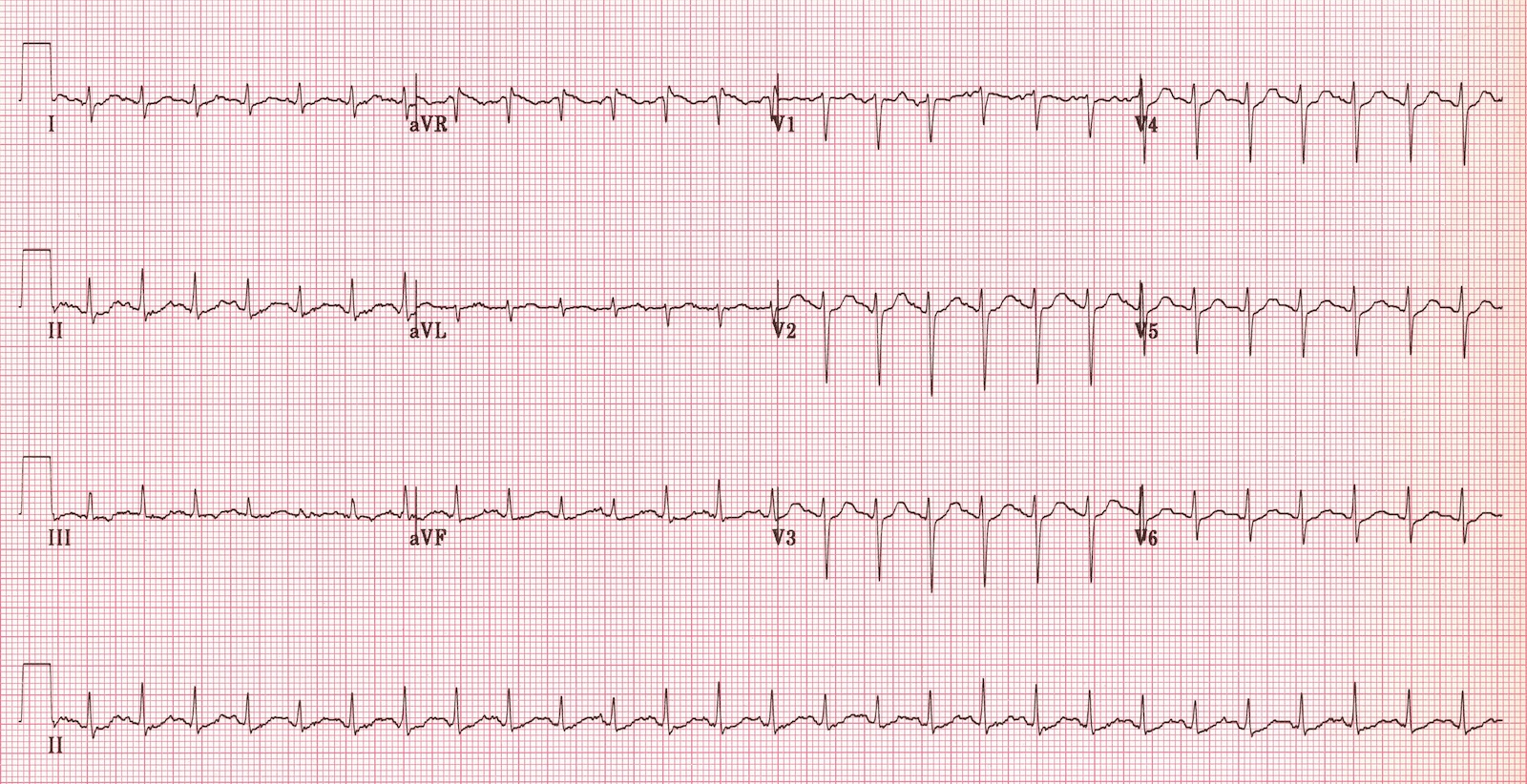
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**LABS – click** [here](https://extranet.interiorhealth.ca/IHUBCFaculty/Diagnostics/Forms/AllItems.aspx?RootFolder=%25252FIHUBCFaculty%25252FDiagnostics%25252FLabs&View=%25257bFD97E2FE-FD01-433F-B9CB-D75A4195924E%25257d) **OR fill out below**

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| |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | | MRP: | | Name: | | | | | | FamPhy: | | Sex: | | | Acct: | | |  | | DOB: | | | MedRec: | | |  | | PHN: | | | Adm | | |  | | Ph: | | | Dis: | | |  | | Loc: | | | Type: | | | **Laboratory Specimen Report** | | | | | | | | SPEC #: | COLL: | | | SUBM DR: | | | | STATUS: | RECD: | | | OTHR DR: | | | |  |  | | |  | | | | QUERIES: | | | | | | | | Test | Result | | Flag | | | Reference | | *CBC* |  | |  | | |  | | WBC |  | |  | | | 3.1-9.7 10ˆ9/L | | RBC |  | |  | | | 3.7-5.0 10 ˆ 12/L | | Hgb | 116 | | **L** | | | 118-151 g/L | | HCT |  | |  | | | 0.33-1.45 L/L | | MCV |  | |  | | | 84.0-98.0 fL | | MCH |  | |  | | | 28.3-33.5 pg | | MCHC |  | |  | | | 329-352 g/L | | RDW |  | |  | | | 12.0/15.0 % | | Platelets |  | |  | | | 147-375 10 ˆ 9/L | | *Manual Diff* |  | |  | | |  | | Neuts |  | |  | | | 1.20-6.00 10 ˆ 9/L | | Lymphocytes |  | |  | | | 0.60-3.10 10 ˆ 9/L | | *WBC Com* |  | |  | | |  | | Toxic Changes |  | |  | | |  | | *Morph* |  | |  | | |  | | Hypochromia |  | |  | | |  | | Polychromasia |  | |  | | |  | | Microcytosis |  | |  | | |  | | Target Cells |  | |  | | |  | | Plt Estimate |  | |  | | |  | | Plt Morphology |  | |  | | |  | |  |  | |  | | |  | |  |  | |  | | |  | |  |  | |  | | |  | | |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | | MRP: | | Name: | | | | | | FamPhy: | | Sex: | | | Acct: | | |  | | DOB: | | | MedRec: | | |  | | PHN: | | | Adm | | |  | | Ph: | | | Dis: | | |  | | Loc: | | | Type: | | | **Laboratory Specimen Report** | | | | | | | | SPEC #: | COLL: | | | SUBM DR: | | | | STATUS: | RECD: | | | OTHR DR: | | | |  |  | | |  | | | | QUERIES: | | | | | | | | Test | Result | | Flag | | | Reference | |  |  | |  | | |  | | Na |  | |  | | | 137-145 mmol/L | | K |  | |  | | | 3.5-5.0 mmol/L | | CL |  | |  | | | 98-107 mmol/L | | CO2 |  | |  | | | 22-30 mmol/L | | AGAP |  | |  | | | 5-14 mmol/L | | Lactate |  | |  | | |  | | Glucose Random |  | |  | | |  | | Urea |  | |  | | | 2.5-6.1 mmol/L | | Creat |  | |  | | | 46-92 umol/L | | GFR Est |  | |  | | | >=60mL/min | | Ca |  | |  | | |  | | PO4 |  | |  | | |  | | Mg |  | |  | | |  | | Bili Total |  | |  | | | 3-22 umol/L | | Albumin |  | |  | | |  | | CK |  | |  | | |  | | Trop |  | |  | | |  | | Alk Phos |  | |  | | | 38-126 U/L | | AST |  | |  | | |  | | LDH |  | |  | | |  | | GGT |  | |  | | |  | | ALT |  | |  | | | 10-65 U/L | | Lipase |  | |  | | |  | | Ferritin |  | |  | | |  | | Iron |  | |  | | |  | | Ammonia |  | |  | | |  | | TSH |  | |  | | |  | | CHOL |  | |  | | |  | | TRIG |  | |  | | |  | | HDL |  | |  | | |  | | LDL |  | |  | | |  | |

**EKGs – click** [here](https://extranet.interiorhealth.ca/IHUBCFaculty/Diagnostics/Forms/AllItems.aspx?RootFolder=%25252FIHUBCFaculty%25252FDiagnostics%25252FECGs&View=%25257bFD97E2FE-FD01-433F-B9CB-D75A4195924E%25257d) **or paste**

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