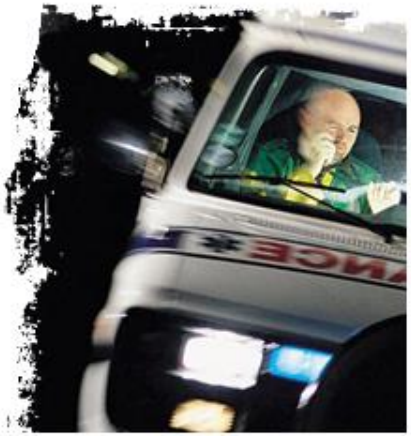
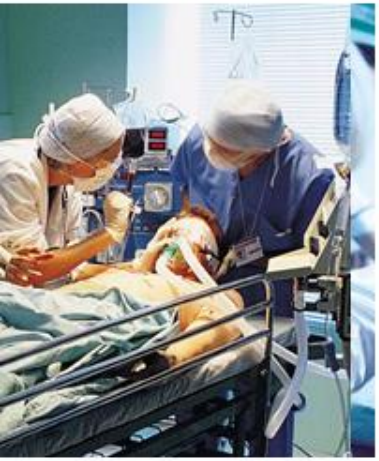



Manajemen Basic Trauma Life Support

Angernani Trias W





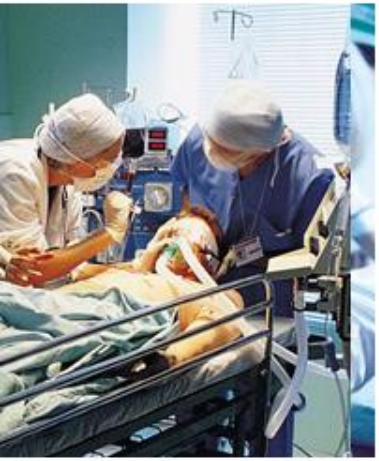



Introduction

- Trauma penyebab kematian nomer 4 didunia pada semua usia
- Golden hour

Waktu untuk sampai di ruang operasi atau tindakan definitive

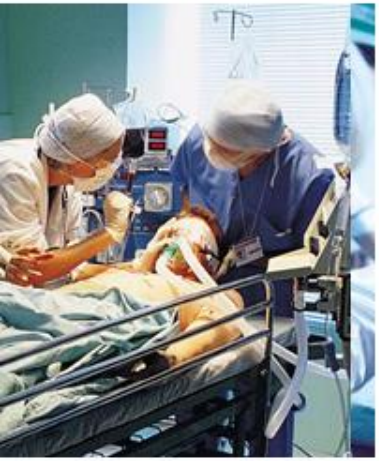
- EMS tidak memiliki golden hour tetapi memiliki platinum yaitu 10 menit



Introduction

- BTLS dilakukan di lokasi kejadian oleh tim ambulan yang datang ke lokasi
- Pasien yang berada dalam waktu golden hour harus segera:

- Dilakukan pengkajian secepatnya
- Manajemen kondisi yang mengancam nyawa
- Segera di bawa (transport) ke fasilitas yang sesuai



Trauma Assesment

Scene Size Up

Initial Assesment

Load and Go Situation

Rapid Trauma Survey

Focus Assesment

Load and Go Situation

Detailed Assesment

Ongoing Assesment

HO SP

Scene Size Up

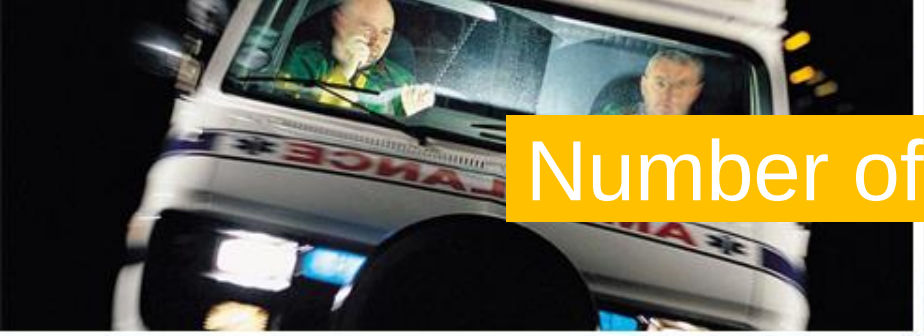
- Safety
- Body Surface Isolation
- Jumlah Pasien
- Additional Resources
- Mechanism of Injury (MOI)

Safety

- Traffic
- Smoke
- Electricity
- Haz-Mat
- Hostile Person
- Weapons
- Drugs

Body Surface Isolation

- Gloves
- Googles
- Mask and Gown



Number of patients

- Kaji jumlah pasien
- Butuh ambulance tambahan?
- aIdentifikasi semua korban

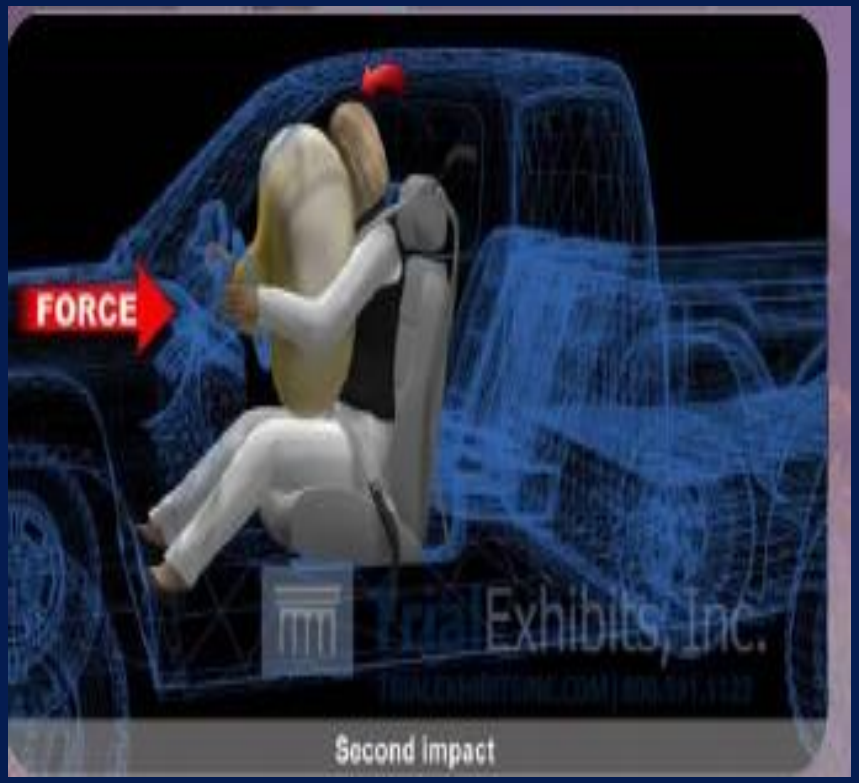
Additional Resources/Equipment

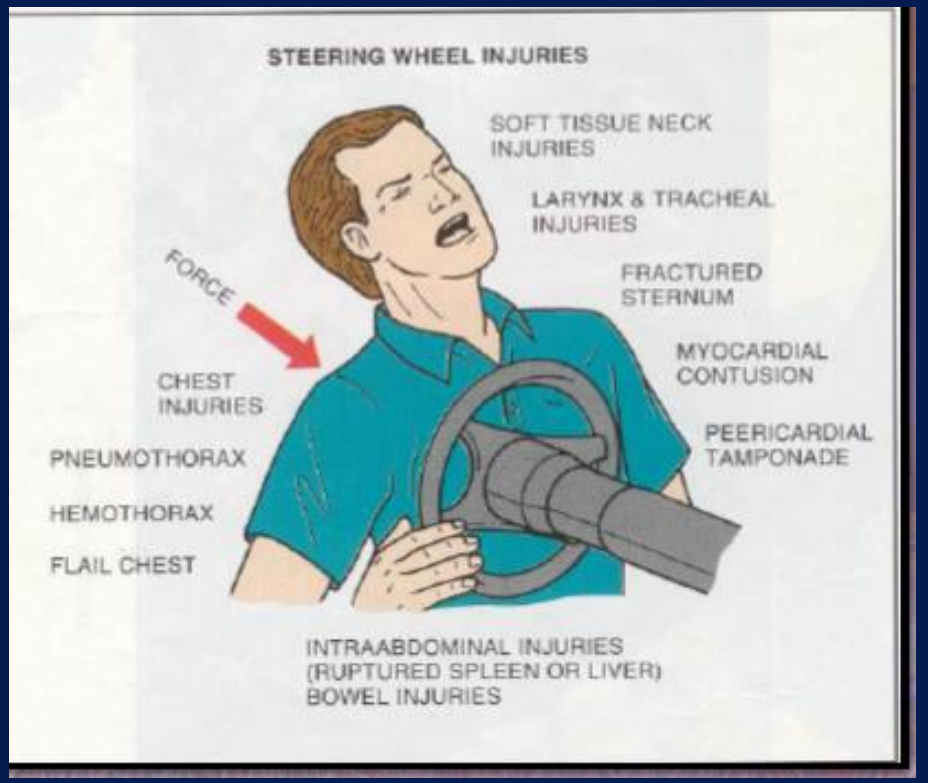
- **Ask for help (polisi, damkar, dll)**
- **Extrication**
- **Utilities**

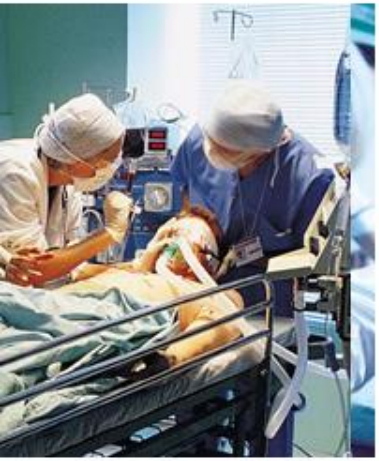
- APD
- Long Backboard dan alat imobilisasi kepala
- Cervical Collar
- Peralatan airway dan Oksigen
- Trauma box

Mechanism of Injury

- Kaji mekanisme terjadinya trauma







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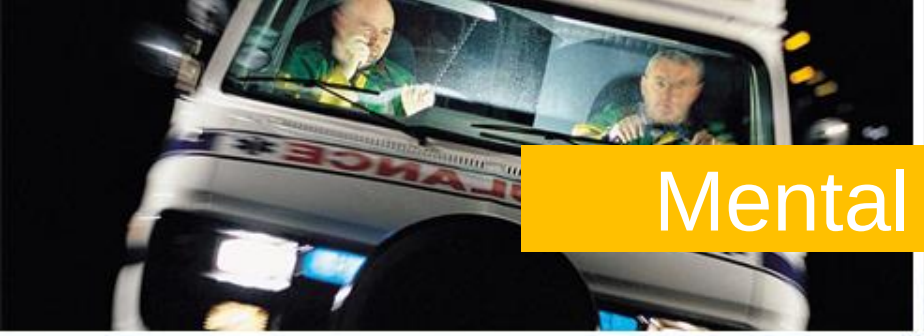
Initial assesment

- General Impression
- Mental status
- Airway
- Breathing Circulation

General Impression

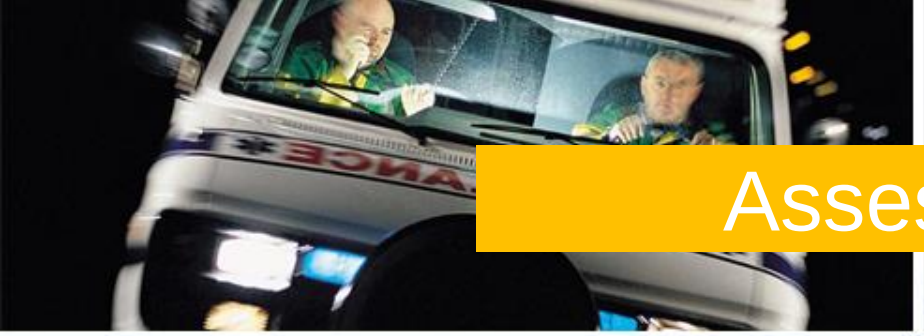
- Triage berdasarkan kondisi
- Perkirakan Jenis Kelamin, Usia, BB
- Posisi
- Aktivitas
- Cedera/Perdarahan yang terjadi



Mental Status

- Pasang C-Spine Control
- A – Alert and immediately responsive
- V – Responsive to verbal stimuli
- P – Responsive to painful stimuli
- U – Unresponsive


AMBULANCE

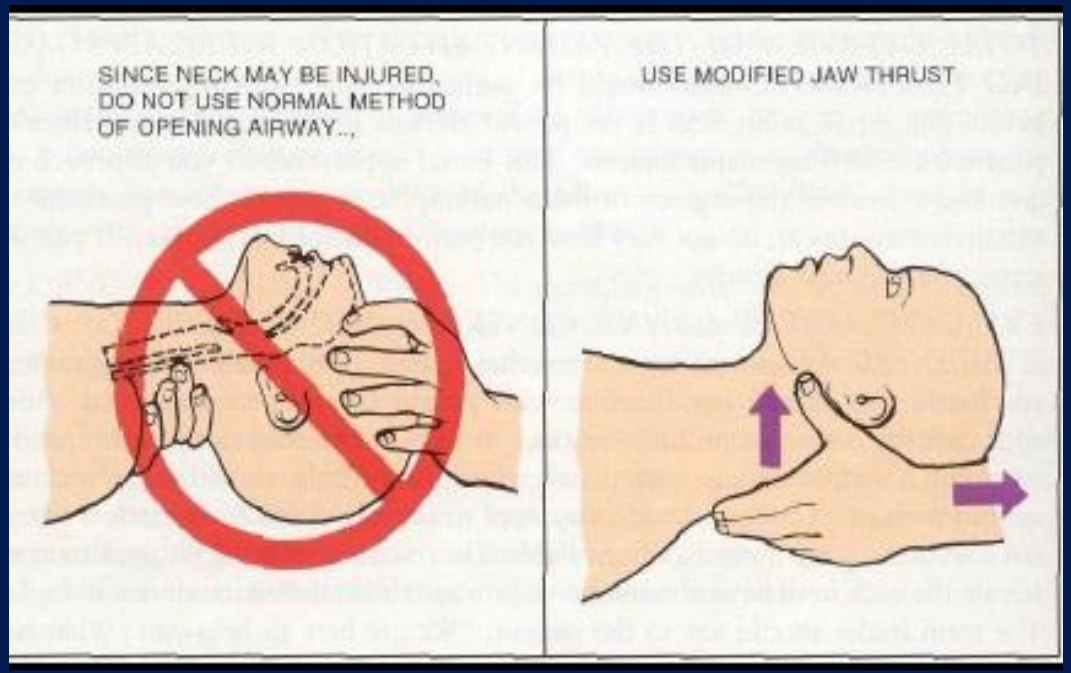


Asses Airway

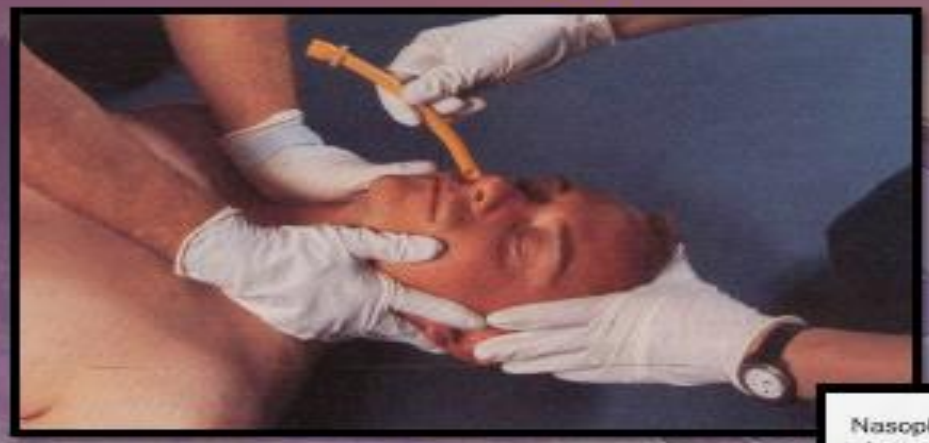
- Buka Jalan Nafas jika memungkinkan dengan jaw-thrust manuver
- Gunakan oro atau naso pharyngeal airway
- Catat dan perhatikan adanya nafas tambahan atau tidak

- Snoring – oro/nasopharyngeal airway
- Gurgling – Suction
- Stridor – Intubasi
- Silence

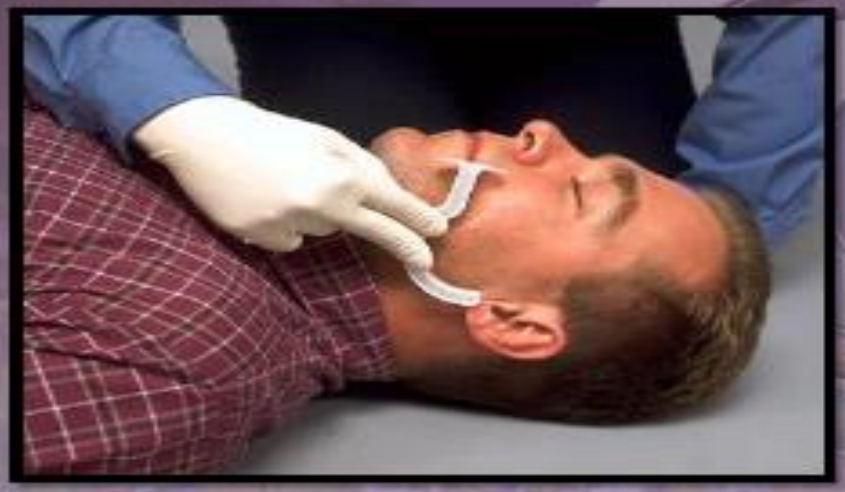

AMBULANCE


SINCE NECK MAY BE INJURED, DO NOT USE NORMAL METHOD OF OPENING AIRWAY..,
USE MODIFIED JAW THRUST

Naso faringeal tube



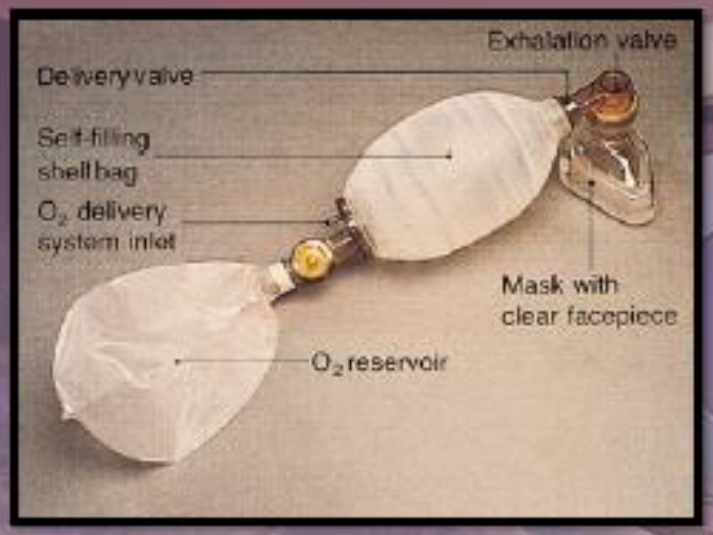
Oro faringeal tube



Asses Breathing

- Look, Listen, Feel
- Rate Rhythm, Depth (tidal volume)
- Use of accessory muscles/retractions
- Treat
- Absent – ventilate x2, check pulse
- <12/min – assist ventilation
- Decreased tidal volume – assist ventilation
- Labored – oxygen 10 liters NRB
- Normal or rapid – consider oxygen

Bag Valve mask - BVM



- BVM: 10-12/ menit
- @1,5-2 detik

Non-Rebreathing Mask

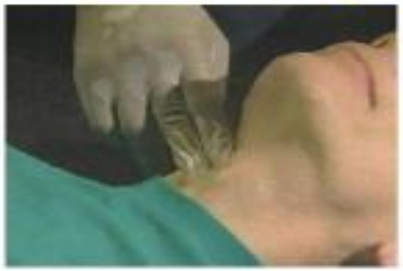
Alat Bantu Pernafasan…

NASAL CANUL		• **1-6L/menit** • **Konsentrasi 24-44%**
SIMPLE MASK		• 5-8L/menit • Konsentrasi 40-60% • Ada lubang untuk mengeluarkan nafas yang dihembuskan
REBREATHING MASK		• 8-12L/menit • Konsentrasi 60-80% • Karbondioksida yang dihembuskan, dihirup lagi • Untuk penderita asidosis

NON-REBREATHING MASK		• **8-12L/menit** • **Konsentrasi 99%** • **Udara inspirasi tidak bercampur dengan ekspirasi**
VENTURI MASK		• 4-14L/menit • Konsentrasi 30-55%
HUMIDIFIER		• Melembabkan oksigen yang akan dihirup

Circulation

Assess Circulation - Pulses



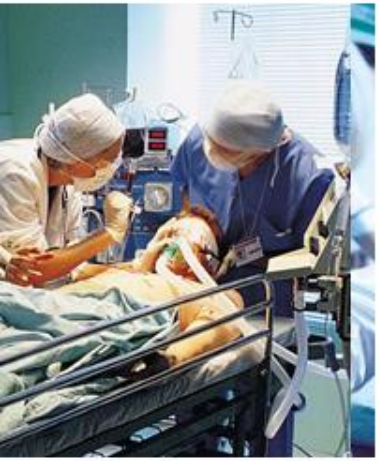
- Compare radial and corotid
- Rate
  - Normal
  - Fast
  - Slow
- Rhythm
  - Regular
  - Irregular
- Quality
  - Weak
  - Thready
  - Bounding

Assess Circulation - Skin

- Color
- Temperature
- Moisture

Assess Circulation - Bleeding

- Direct pressure
- Pressure dressing



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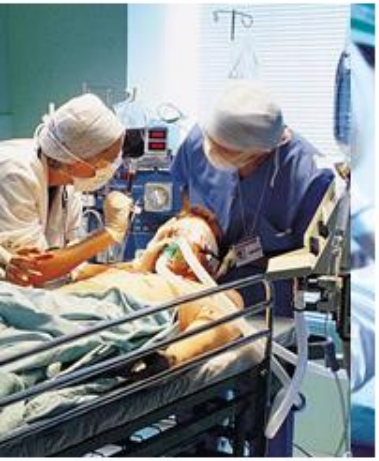
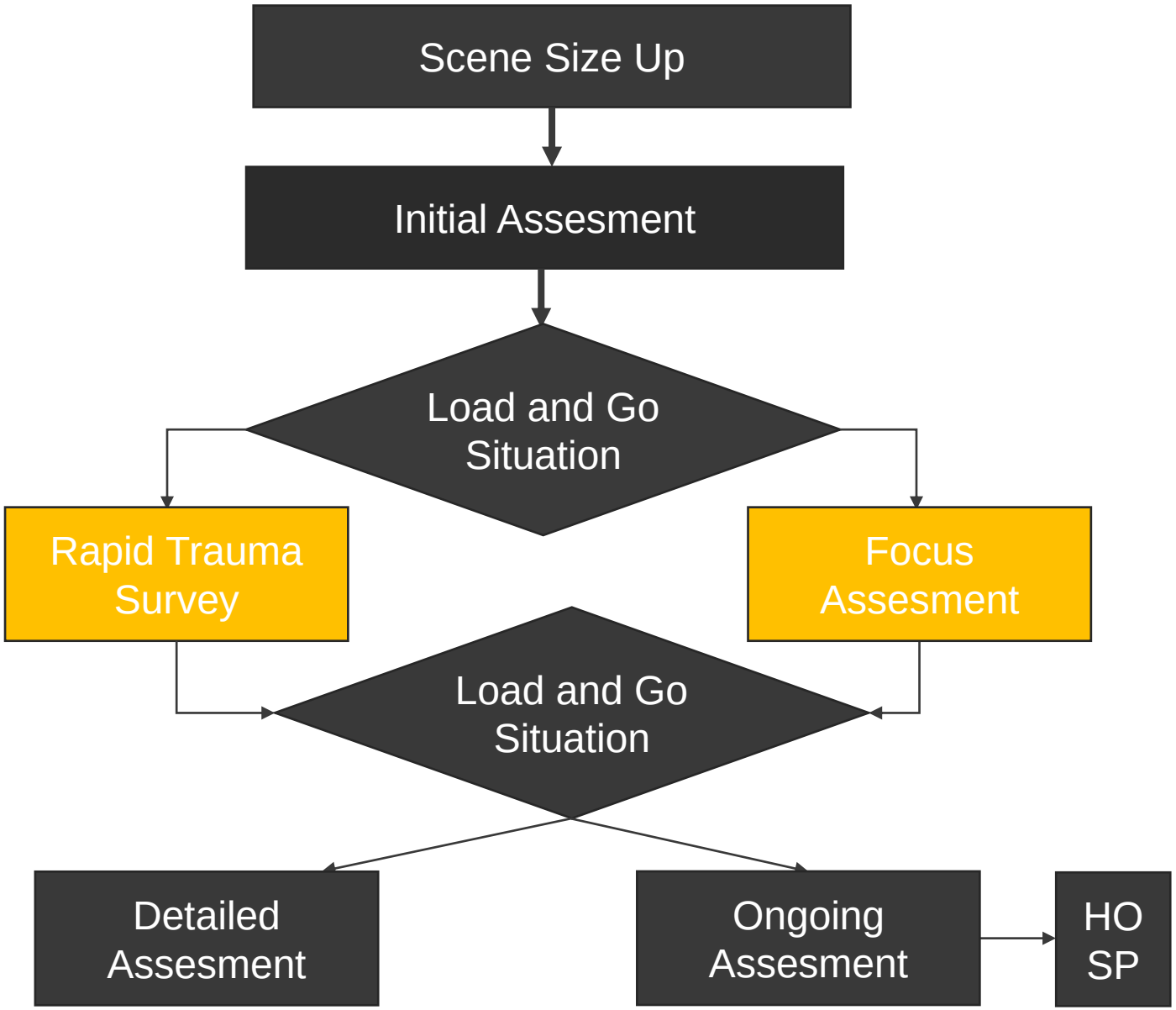
HO SP

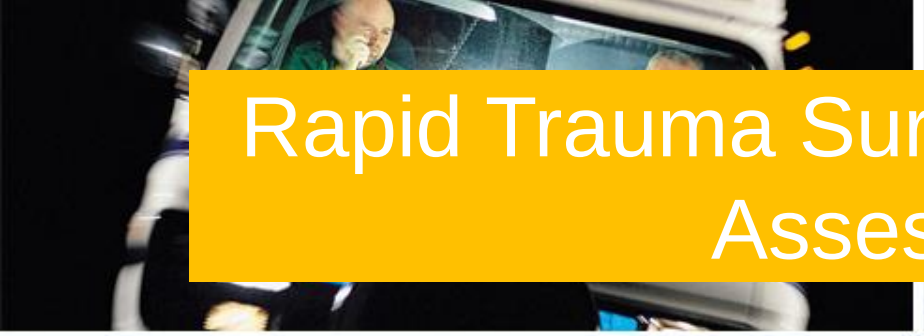

Kriteria Load and Go

- Mekanisme trauma yang berbahaya
- Riwayat yang menunjukkan:
- Kehilangan kesadaran
- Kesulitan bernafas
- Nyeri kepala, leher dan badan yang hebat
- **Hasil initial assessment**
- Perubahan status mental
- Kesulitan bernafas
- Kondisi perfusi yang abnormal
- Perdarahan Hebat
- Kelompok resiko tinggi: Bayi, lansia, peny. Kronis dll



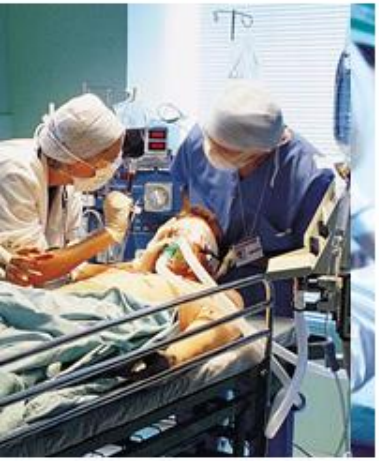
Trauma Assesment






Rapid Trauma Survey atau Focused Assesment

- Tergantung Initial Assement
- Jika terdapat kondisi berbahaya yang bersifat umum (kecelakaan, jatuh dari ketinggian, tidak sadar) → Rapid Trauma Survey
- Jika mekanisme trauma bersifat lokal/ terfokus (tertembak peluru di paha, tertusuk pisau di dada) → Focused Exam



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Rapid Trauma Survey

- Head to Toe
- Rapid sweep to identify major injuries which could prove life threatening
- DCAP-BTLS

NURSING HEALTH ASSESSMENT

NURSING MNEMONICS & TIPS

RAPID TRAUMA ASSESSMENT

"DCAP-BTLS"

D — **DEFORMITY & DISCOLORATIONS**

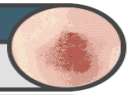
Malformations or distortions of the body.

C — **CONTUSIONS**

Injury to tissues with skin discoloration and without breakage of skin; also called a bruise.

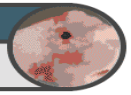
A — **ABRASIONS**

Scrape caused by rubbing from a sharp object resulting in surface denuded of skin.



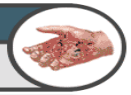
P — **PUNCTURES OR PENETRATION**

Wound with relatively small opening compared with the depth; produced by a narrow pointed object.



B — **BURNS**

Burns are injuries to tissues caused by heat, friction, electricity, radiation, or chemicals.



T — **TENDERNESS**

The condition of being tender or sore to the touch.

L — **LACERATIONS**

A torn or jagged wound caused by blunt trauma; incorrectly used when describing a cut.

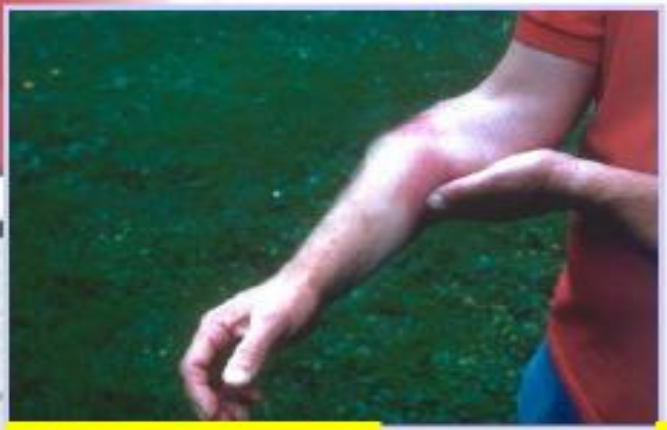
S — **SWELLING**

Sign of inflammation; caused by the exudation of fluid from the capillary vessels into the tissue.

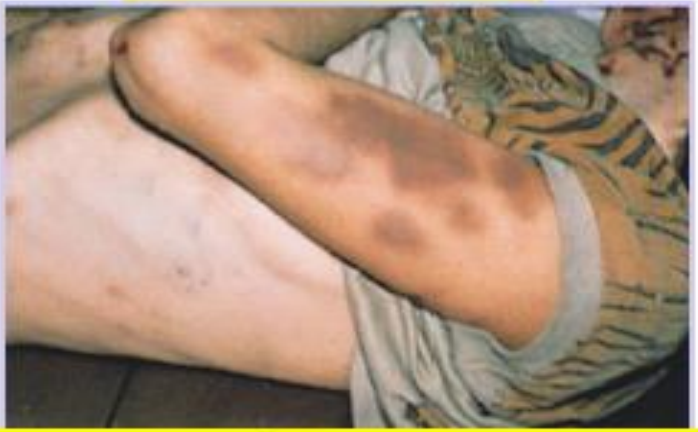
LEARN MORE: DCAP-BTLS ASSESSMENT

DCAP-BTLS is a mnemonic to remember specific soft tissue injuries to look for during assessment of a person after a traumatic injury.

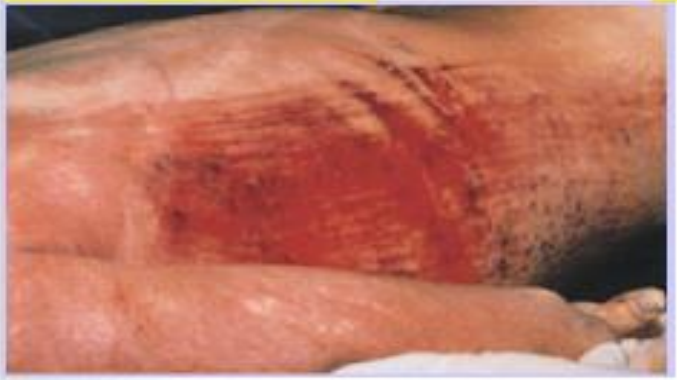
Deformities



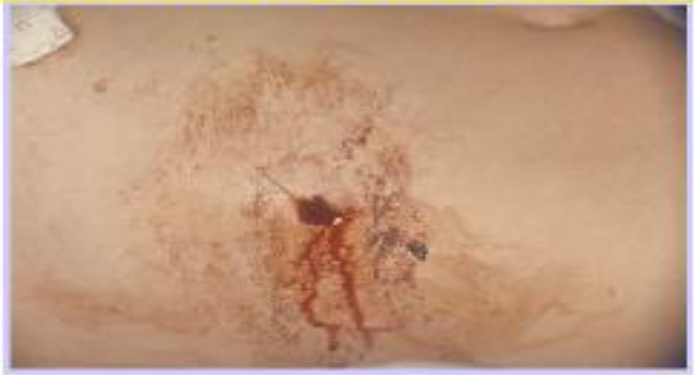
Contusions



Abrasions



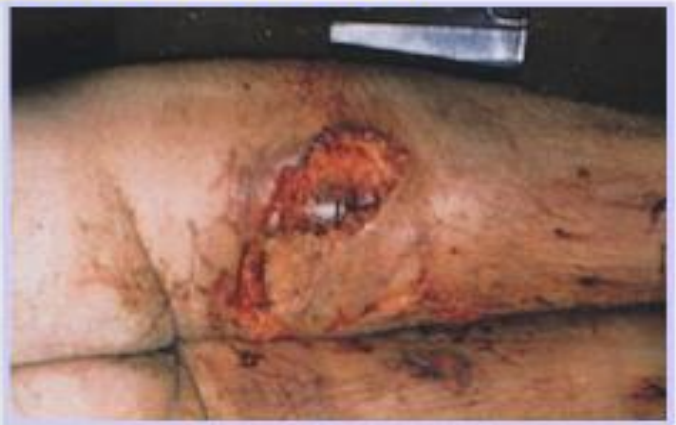
Punctures/Penetrations



Burns

Tenderness

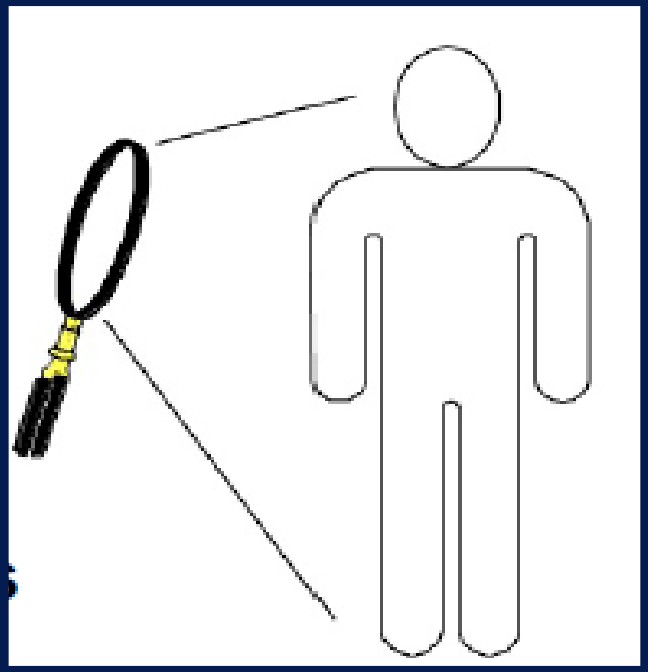
Lacerations



Swelling

Rapid Trauma Survey

- Head
- Neck
- Chest
- Abdomen
- Pelvis
- Extremitas
- Posterior

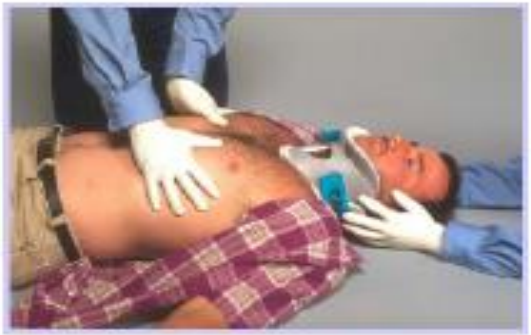


- Head: DCAP-BTLS + Crepitation

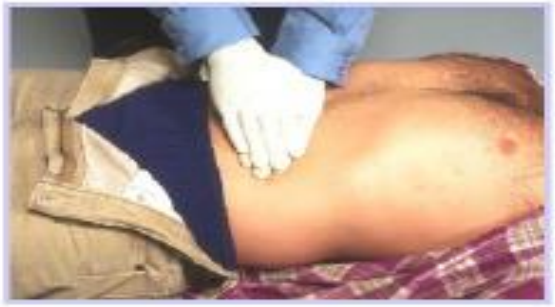
- Neck: DCAP-BTLS + Jugular Vein Distention and Crepitation

Crepitation

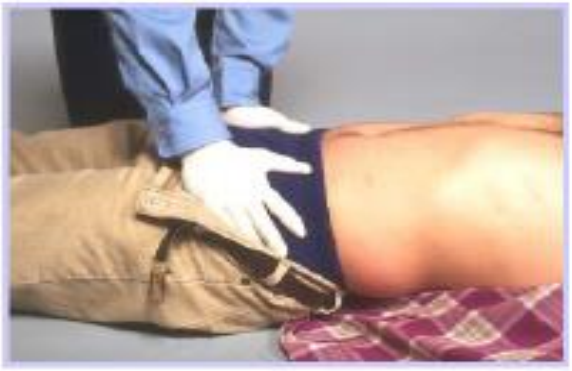
- Chest: DCAP-BTLS + Crepitation and Breath Sounds (Presence and Equality)



- **Abdomen: DCAP-BTLS + Firmness and Distention**



- **Pelvis: DCAP-BTLS** (Compress gently)



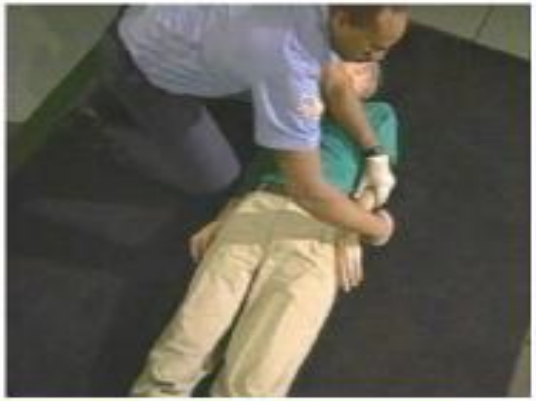
Prosedur yang harus selesai di TKP dan dapat didelegasikan

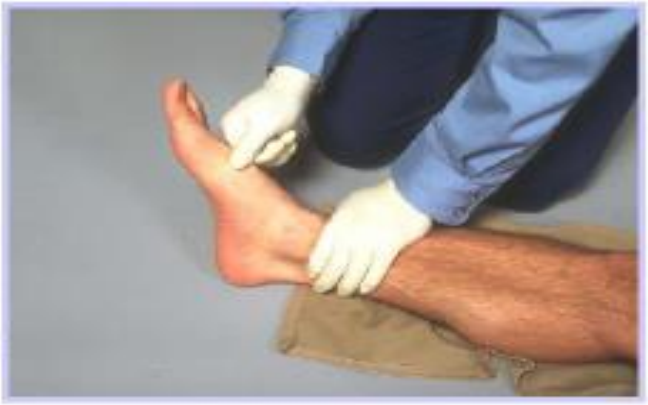
- Initial airway management
- Assist ventilation
- Administer oxygen
- Begin CPR
- Control of major external bleeding
- Seral sucking chest wound
- Stabilize flail chest
- Stabilize impaled object
- Complete packaging of the patient

Package and Begin Transport

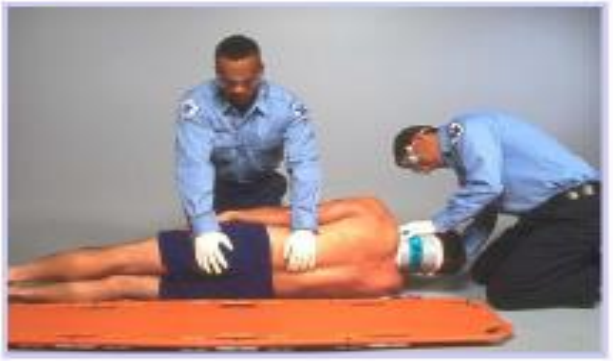
- Immediate → immobilize, load, go
- Delayed – immobilize, treat as necessary, transport

- Extremities: DCAP-BTLS + Distal Pulse, Sensation, Motor Function



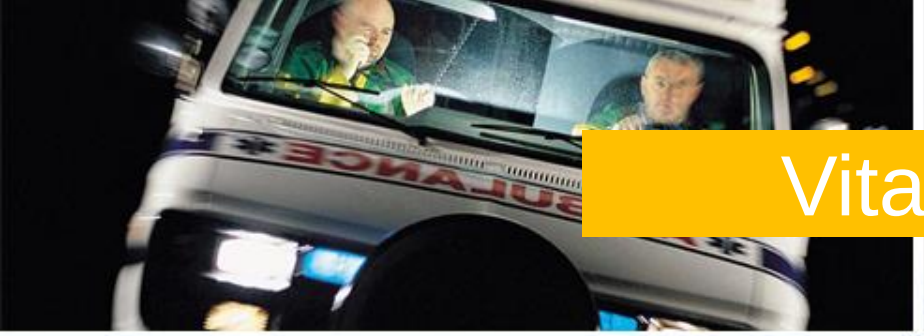


- Posterior: DCAP-BTLS



Focused History and Physical

- Fokus dan tangani kondisi yang ditemukan pada initial assessment dan rapid trauma assessment sesuai dengan prioritas
- Baseline Vital Sign
- SAMPLE history



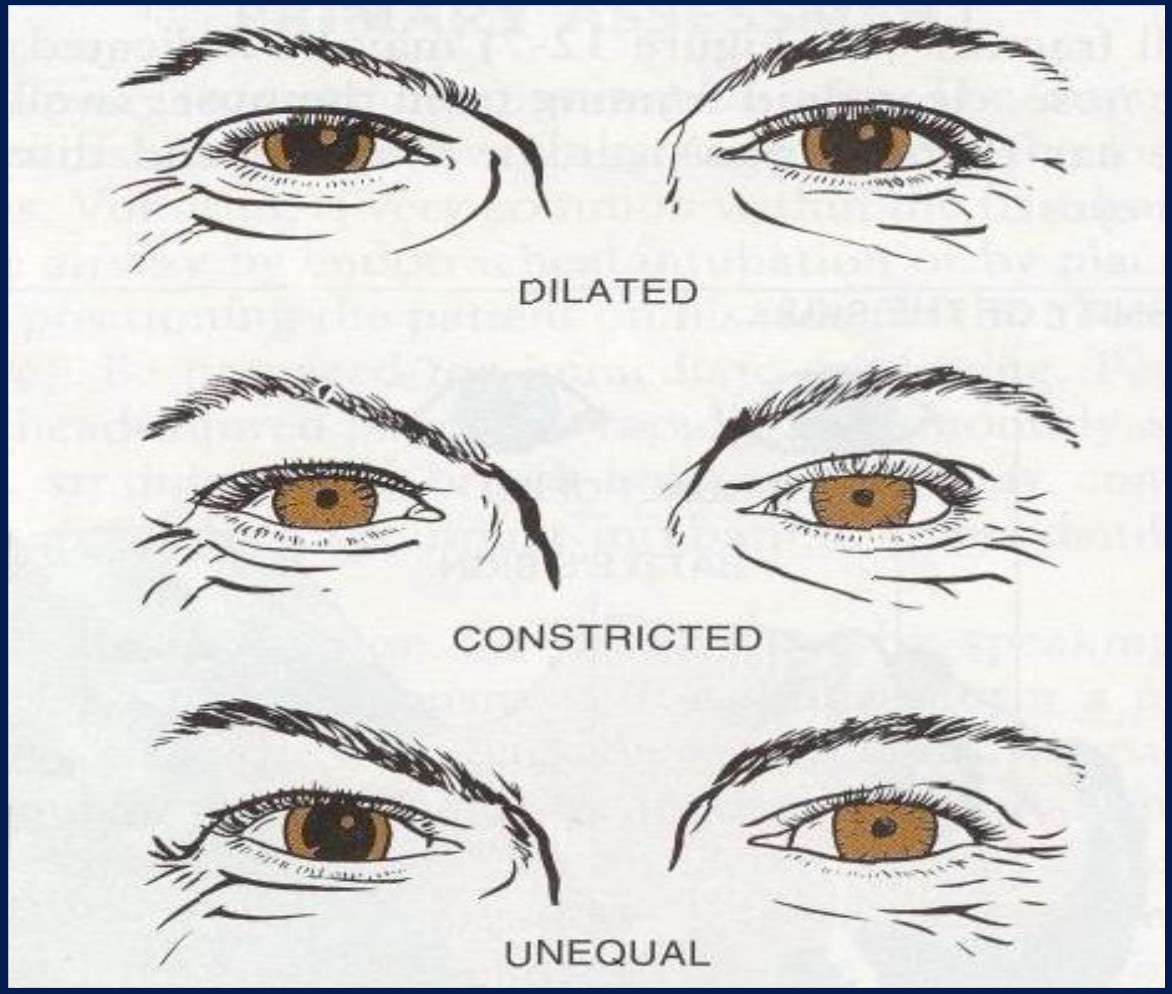
Vital Sign

- RR
- HR
- Skin Color, temperature, kondisi
- Pupil
- TD

	Normal	High	Low
Blood Pressure	120/80 mmHG	130/85 mmHG or higher	100/60 mmHG or lower
Pulse Rate	60 - 100 bpm	100 bpm or higher	60 bpm or lower
Respiratory Rate	12 - 18 bpm	25 bpm or higher	12 bpm or lower
Temperature	98.6° F (37° C) ±1° F	101° F (38.3° C) or higher	96.8° F (36° C) or lower

This information is not intended to replace the advice of your health care professional.


AMBULANCE


DILATED
CONSTRICTED
UNEQUAL

NURSING HEALTH ASSESSMENT

NURSING MNEMONICS & TIPS

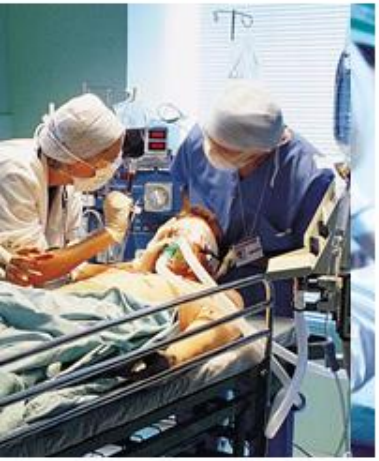
HEALTH HISTORY ASSESSMENT

"SAMPLE"

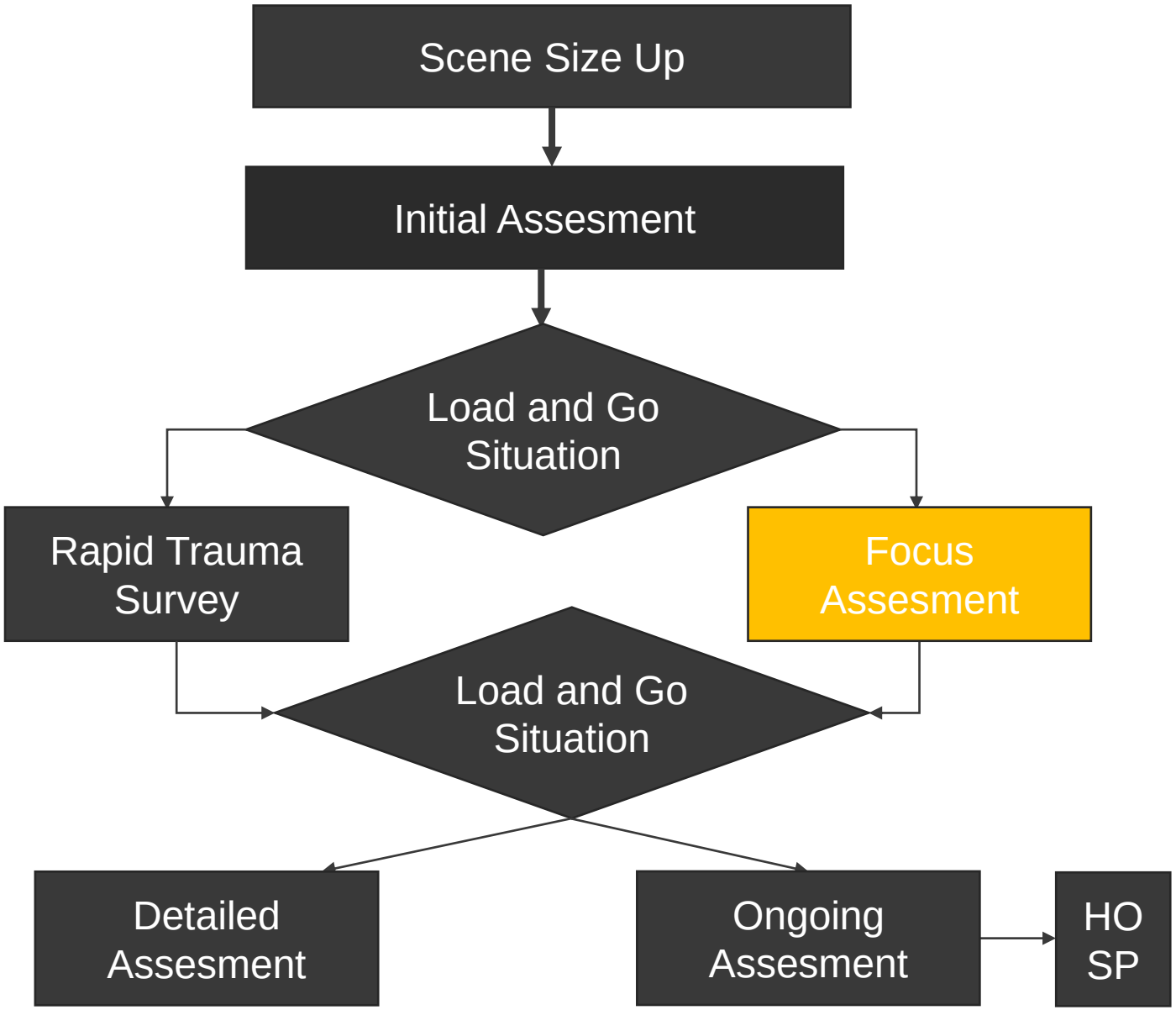
	DESCRIPTION	QUESTIONS TO ASK
S	**Symptoms** *Patient's chief complaints*	*"What's wrong?"* *"What brought you to the hospital?"*
A	**Allergies** *Seeking to know what type of allergic reaction they experience.*	*"Are you allergic to anything?"* *"What happens to you when you use something that you're allergic to?"*
M	**Medications** *Prescribed, OTC drugs, herbal meds, etc.*	*"Are you taking any medications?"* *"What are you taking the medications for?"* *"When did you last take your medications?"*
P	**Past Medical Hx** *Seeking to know the previous state of health, and previous illnesses*	*"Have you had this problem before?"* *"Do you have other medical problems?"*
L	**Last Oral Intake** *Seeking what are the last oral intakes of the client.*	*"When did you last eat or drink anything?"* *"What was it that you last ate?"*
E	**Events** *Events leading up to the illness or injury.*	*Injury: "How did you get hurt?"* *Illness: "What led to this problem?"*

LEARN MORE: HEALTH HISTORY ASSESSMENT

In general, do not obtain a detailed history until life-threatening injuries have been identified and therapy has been initiated. The secondary survey is essentially a head-to-toe assessment of progress, vital signs, etc. SAMPLE is often useful as a mnemonic for remembering key elements of the patient's health history.



Trauma Assesment

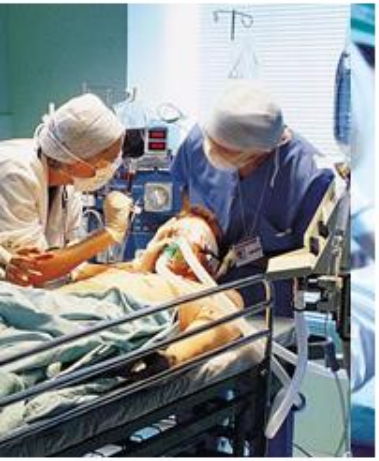


Focused Assesment

- Dilakukan apabila trauma terjadi pada kondisi tertentu pada tubuh
- Berfokus pada area trauma
- Kaji riwayat (SAMPLE)
- Kaji tanda vital

Kriteria Load and Go

- Hasil Rapid Trauma Survey
- Pemeriksaan dada yang abnormal (flail chest, luka terbuka, tension pneumothorax, hemothorax)
- Abdomen nyeri tekan dan distensil
- Pelvis tidak stabil
- Fraktur femur bilateral



Trauma Assesment

Scene Size Up

Initial Assesment

Load and Go Situation

Rapid Trauma Survey

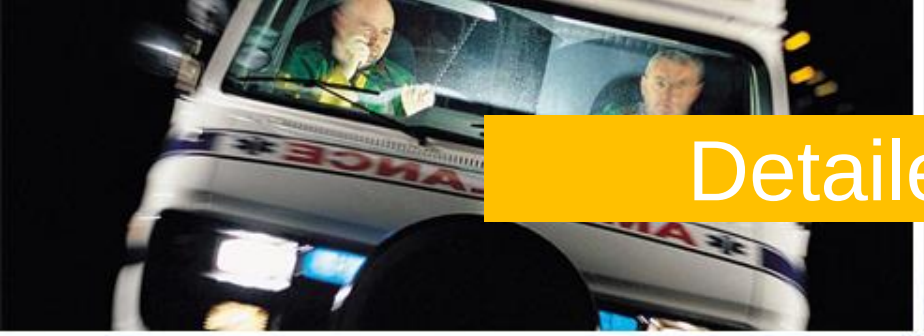
Focus Assesment

Load and Go Situation

Detailed Assesment

Ongoing Assesment

HO SP



Detailed exam

- Merupakan pemeriksaan yang lebih komprehensif
- Pada pasien yang kritis, dilaksanakan pada saat transport
- Jika pada pemeriksaan sebelumnya TIDAK ditemukan kondisi kritis, pemeriksaan ini bisa dilakukan di tempat kejadian

Pemeriksaan Neurologi

- Cek tingkat kesadaran → GCS
- Kadar glukosa darah? (Jika penurunan kesadaran)
- PMS

- Pupil? Simetris? Respon cahaya?
- Motor? Apakah jari bisa digerakkan
- Sensation? Apakah bisa merasakan sentuhan?

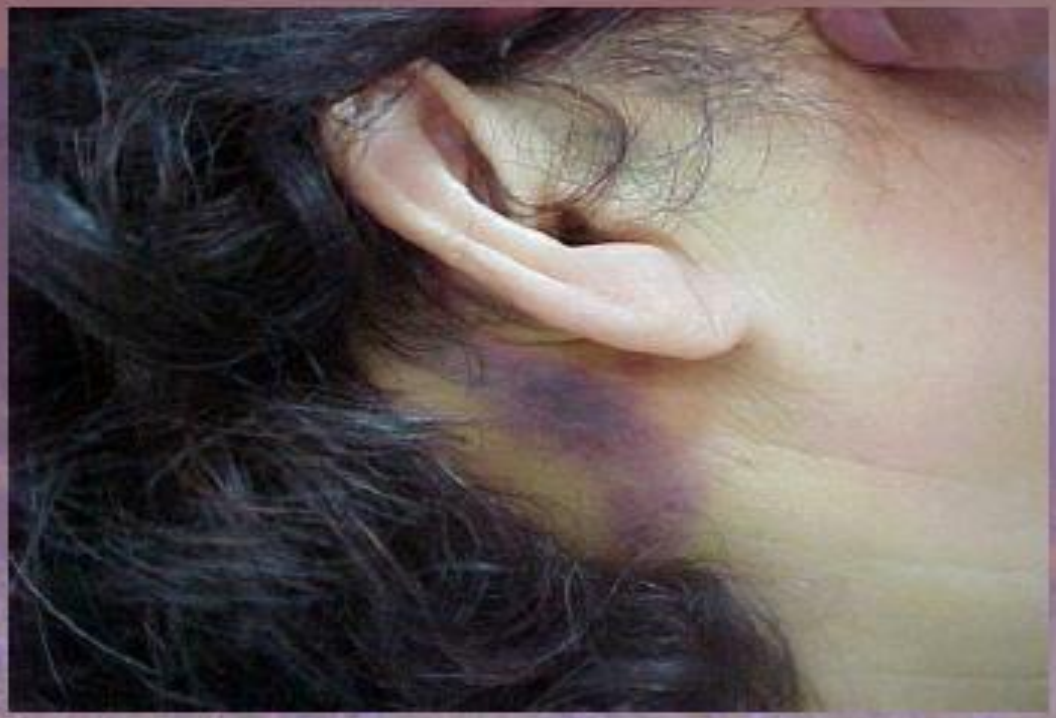
Detailed Physical Exam

- As appropriate, considering priority
- History and vital signs, neurological
- Repeat initial assessment
- Complete critical intervention
- Careful head to toe survey (DCAP/BTLS)

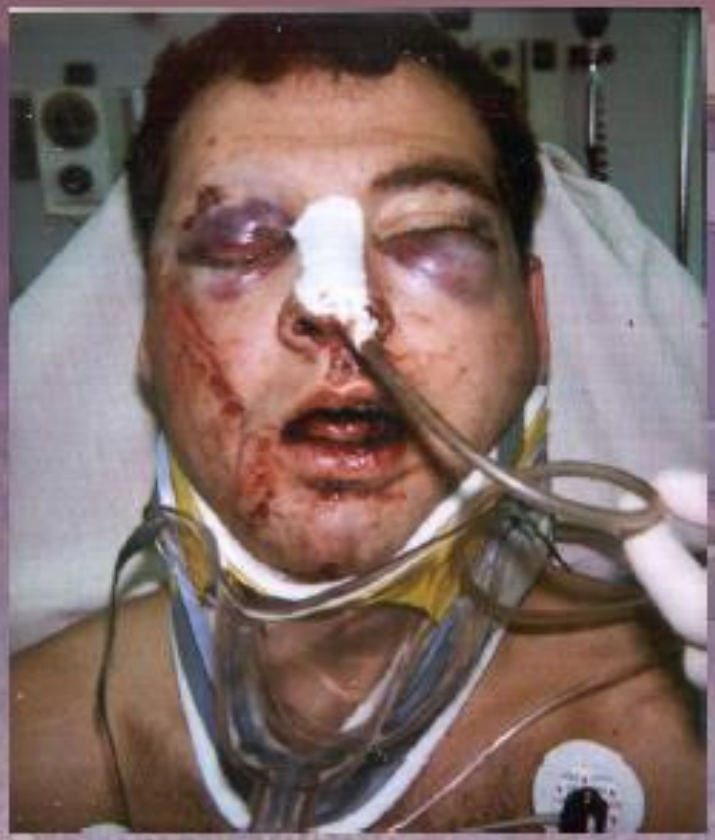
Detailed Physical Exam

- Head → DCAP/BTLS and crepitation
- Ears – DCAP/BTLS and blood/fluid
- Face – DCAP/BTLS and blood/fluid
- Eyes – DCAP/BTLS and discoloration, pupils, foreign bodies, blood
- Nose – DCAP/BTLS and blood/fluid
- Mouth - DCAP/BTLS and teeth, swelling, lacera tain, odor

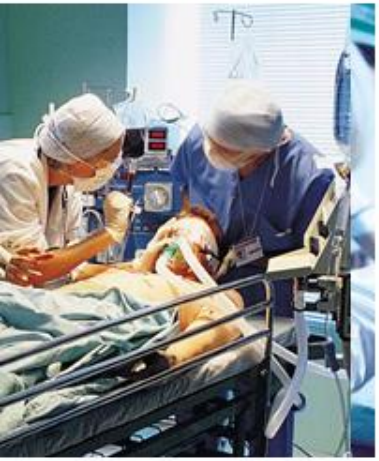
Battle signs



Racoon eyes



- Neck – DCAP/BTLS and JVD, crepitation
- Chest – DCAP/BTLS and palpate for paradoxical motion, symmetry, crepitation, and auscultate breath sounds
- Abdomen – DCAP/BTLS and tenderness, rigidity, distention
- Pelvis – DCAP/BTLS and pain, tenderness, motion, crepitation
- Upper extremities – DCAP/BTLS and PMS
- Lower extremities – DCAP/BTLS and PMS
- Posterior – DCAP/BTLS



Trauma Assesment

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HO SP

On Going Assesment

- Dilakukan untuk mengkaji perubahan kondisi pasien
- Pasien kritis: dikaji tiap 5 menit
- Pasien stabil : tiap 15 menit
- Serta dilakukan tiap pasien dipindahkan, selesai tindakan atau perubahan kondisi

On Going Assesment

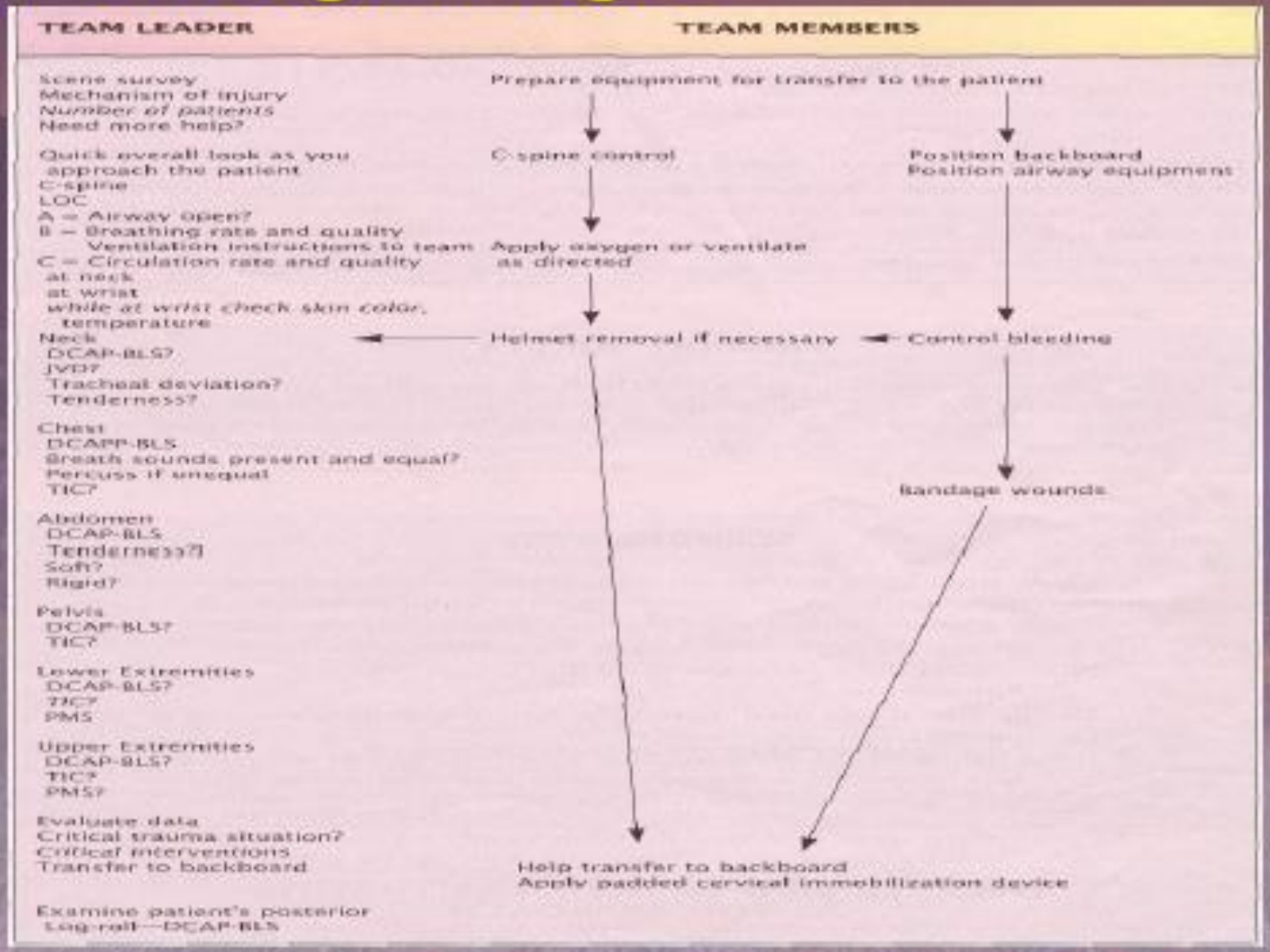
- Tanyakan kepada pasien perubahan yang terjadi?
- Kaji ulang status mental
- LOC = Level of consciousness
- Pupil
- GCS (pada perubahan kesadaran)
- Kaji ulang ABC
- A = kaji kepatenan
- B dan C = kaji ulang tanda2 vital, kaji warna kulit dan suhu

On Going Assesment

- Kaji ulang leher
- Kaji ulang dada
- Kaji ulang abdomen
- Kaji ulang trauma yang terjadi
- Kaji intervensi yang telah dilakukan:

- Kaji aliran oksigen
- Kaji WSD
- Kaji balut bidai
- Kaji benda yang tertancap
- Kaji kondisi kehamilan
- Kaji monitor jantung dan pulse oxymetri

Pembagian tugas



Terimakasih
Selamat Belajar