Spinal Immobilization Scenarios

Scenario 1:

Medic 2 and 3112 arrive to find a 24 y/o male sitting on the sidewalk on Pacific Ave. Per witnesses he was punched in the head multiple times and fell down to the ground. He briefly lost consciousness. Upon exam the pt is A&O x3 (doesn’t recall the event) with a GCS of 15. He has normal skin signs and normal work of breathing. No neuro deficits are noted. He has facial lacerations and swelling to his nose and right orbit. No other trauma is noted. No spinal tenderness is noted. He has beer on his breath and he admits to having a few beers. He complains of mild head pain, but denies all other complaints. He reluctantly agrees to go to the hospital after SCPD says, “It’s jail or the hospital buddy.” How would you handle this pt.? Full spinal immobilization? Partial? Or nothing at all? Why?

Appropriate treatment:

Varies – depending on the comfort of the lead medic and how intoxicated the patient appears. Could include partial immobilization of the head, neck and trunk, or collar only, or no spinal precautions at all.

Scenario 2

Medic 4 and e 4412 arrive to find an 18 y/o male pt walking on the sidewalk on Freedom Blvd. WPD informs you that the pt has multiple stab wounds to his chest, back, and neck. Upon exam you find the pt A&O x4, but lethargic. He is pale/cool/moist, with an increased work of breathing. He has a small stab wound to the left side of his neck, 3 moderate stab wounds to the left side of his back, and two to his chest. He has numbness in his extremities, but seems to be moving everything ok. You recognize this as a load and go pt. As you attempt to lay him flat on a backboard, you notice 2 things. 1st you’re spending more time on scene than you’d like, and 2, the pt does not seem to be tolerating lying flat. How would you handle this pt.? Full spinal immobilization? Partial? Or nothing at all? Why?

1-Apply c-collar as long as it does not hinder care of stab wound to neck and airway management.
2- Use a half splint to immobilize pt’s spine while he is sitting up. Use appropriate padding and tape to secure pt and limit movement.

3. Use the most appropriate equipment that will take the least amount of time to apply. Remember that this pt. is bleeding out and needs a trauma surgeon ASAP.

Scenario 3

Medic 3 and e3411 are dispatched to an MVA on Hwy 1 and arrive to find a large 40 y/o female pt sitting in the driver seat of a sedan complaining of neck pain and back soreness. She was restrained and was rear-ended by an SUV traveling approximately 35mph. She did not lose consciousness or hit her head. Her car has moderate damage. Upon exam she is A and O x4, p/w/d, with a normal work of breathing. NO NEURO DEFICITS ARE NOTED. No trauma is noted to her spine. How would you proceed?

Appropriate treatment:

1- Apply c-collar while pt is in the car.
2- Instruct pt, that if she is able, slowly walk out of care and sit on backboard or other immobilization device. Instruct her to limit movement of her neck and back.
3- Immobilize pt.’s spine using appropriate equipment – vacuum splinting or padded board would be best.

Scenario #4

86 y/o. female, 130lbs, fell from sidewalk to pavement. Hit head with small laceration to forehead/bleeding controlled. Has minor abrasions to both palm, minor abrasion to both knees, complains of pain to her forehead, hands, and pain “all over” her neck and unable to rate or describe pain. Denies loc, headache, n/v, numbness or tingling in extremities. Kyphosis is noted . Patient with a hx of osteoporosis, HTN, afib, diabetes.

TREATMENT: IMPROVISED SPINAL PRECAUTIONS. FOCUS SHOULD BE ON KEEPING PT. COMFORTABLE. USE SOFT COLLAR, PADDING AND HALF SPLINT. Could also use full vacuum splint.
Scenario #5

35 y/o M involved in a MVC. Pt. is driver of a Prius that was “t-boned” on the driver’s side with + intrusion. Pt. has a penetrating wound to L chest wall. No LOC. Pt. is alert and oriented x 4 and pale. No suspected intoxication. Pt. denies neck/back pain on palpation and with range of motion test and has + CSM x 4 with no numbness or tingling to extremities. No other injuries found on primary. Extrication can be done without tools from any door other than the driver’s door.

**How do you extricate and package this pt.?**

Self extricate if pt. is able. If pt. needs help due to pain: Ready Bed, KED, or short-board can be utilized. Backboard too can be utilized but if you are trying to not place pt. in traditional full c-spine, backboard would be last choice. No spinal precautions acceptable here? Recall the mechanism in this case.

Scenario #6

22 y/o M involved in a fight outside of the Brittania Arms Pub. Pt. suffered significant blunt trauma from multiple strikes from a baseball bat. Witnesses say he had + LOC after a blow to the side of the head and hit the asphalt with the back of his head upon falling. Strong ETOH odor is present. Pt. has slurred speech and does not recall event and has multiple lacerations to the R side of head and face with blood in mouth. Pt. denies neck/back pain on palpation and has + CSM x 4 with no numbness/tingling.

**How do you package this pt.?**

Pt. will require some c-spine precaution due to his apparent substantial intoxication. Full c-spine precautions (with padding and raised knees) are acceptable here, however blood in mouth and potential for vomiting gives a reason to transport pt. in semi or high fowlers. ½ spinal immobilization also acceptable.
**Scenario #7**

50 y/o F involved in a high speed rollover. + air bag deployment and pt. has multiple head lacerations, R femur fracture, R shoulder dislocation, and tender abdomen. Pt. is alert to person only and has no slurred speech, and no ETOH odor.

How do you package this pt.?

Due to the patient's inability to provide accurate information and the pts. multiple systems blunt trauma, this pt. should be placed in full spinal immobilization with the use of comfort aids such as vacuum splint, soft or stiff collar, pillows and elevated knees.

**Scenario #8**

25 y/o M fell from ladder from approx. 20 feet. Pt. is found a/o x 4 in the combination prone/R lateral/ position with neck hypo-extended. Pt. c/o neck/back pain tenderness upon palpation and numbness to lower extremities. Pt. is unable to move and has been lying on the dirt for 4 hours.

**How do you package this pt.?**

This pt. needs full spinal immobilization and needs to be placed in a neutral in-line position if possible. Particular attention must be paid to not causing cervical spine pain, neurological deficits, or neck spasm when moving pt. to backboard. The pt. may not be able to be moved much at all and will have to be supported with pillows and vacuum splints. With hypo-extended neck, vacuum splint or padding can be used to stabilize the cervical spine.

**Scenario #9**

You are dispatched to a vehicle accident with possible injury. You arrive on scene to find the two cars that were involved in the accident have now pulled into a parking lot. There is one man out of the vehicle waving you in to his location. The cars involved were small sedans. One car has a rear bumper that appears to have some minor damage, and you find no air bag deployment or other damage to either vehicles. The
man states he is not injured, but tells you that the other car has a older lady still sitting inside her car. The man tells you that he was driving behind her when she turned suddenly. He states he rear ended her car going 10mph.

You assess the older woman. She is a 80 y/o female, a and o x 4 cc mid-line neck pain. Pt denies any loc, or pain anywhere else besides her neck. Pt states she was wearing her seat belt, and no air bag was deployed. Pt reports she was almost at complete stop when she was rear ended. Upon your assessment you find she has 2/10 mid-line neck pain. You find no signs of obvious trauma, and she has good CSM x 4, no numbness or tingling to her hands or feet. Pt denies any medical history except that she has chronic back pain from a previous fall. Pt reports that she has never had neck pain the past. What do you do?

Scenario #10

You are dispatched for fall. You arrive on scene to find a 6 y/o male lying supine on a bench with BLS fire holding c-spine. Per family on scene they were taking family photos and had been letting the boy sit on a railing about 3 feet high. The mother on scene states she turned away from her son to take some more pictures, and then turned back to find he had fallen to the ground. She reports he wasn't moving for about a minute, and then started crying. No one reports seeing the child fall.

The mother reports she picked the pt up from the ground to see if he could walk and laid him down where he is now. Your pt is A and O x4, and is tracking you, and well answering all question. Pt states he remembers falling, and hit the right side of his head on the cement. Pt has a 2” hematoma to the right temple. He states he has 4/10 head pain. Pt denies any loc, neck or back pain. Pt has good CSM x 4, no numbness or tingling to his hands or feet. What would you do?

Full c-spine? Modify c-spine? Clear c-spine?
Scenario #11
You are dispatched for a bicycle accident. 19 y/o female with injuries to the head. Arrive on scene to find a female sitting on the ground. Two bikes are nearby. During the assessment the pt states she did not lose consciousness. Her pupils are PEARL. She has a small gash (about half inch long) on her forehead above the left eye at the hair line. Blood is streaming out of it. She also has numerous small scraps on her knuckles and some road rash on her shoulder. She states that she was not wearing a helmet. Apparently she crashed into another bicycle. When you apply a bandage to her forehead you note that the wound seems deep but bleeding does stop after awhile. She is not complaining of any neck pain or pain elsewhere other than her hands. She is not complaining of any pain in her head either.

Scenario #12
You are on scene at an elderly board and care facility where an 84 y/o female patient has just had a syncopal episode. On arrival you find the patient sitting on the floor. She is conscious and alert but does not remember how she got onto the ground. On assessment you notice a moderate skin tear with minor bleeding to the left arm and small occipital closed hematoma. You ask the patient if she has any neck or back pain and she states that she always has pain but she can’t tell if it is any worse because of her severe arthritis. The patient has good movement of all extremities with no peripheral paresthesia.

Scenario #13
52 y/o male patient involved in MVA rollover. The patient was traveling approximately 40 mph when his mid-sized SUV was side swiped by another similar sized vehicle. The patient’s vehicle skidded sideways and rolled a single turn onto the roof. On arrival you find the patient sitting roadside conscious and alert. The patient states that he was restrained, had no LOC, and was able to self extricate from the vehicle. You notice moderate damage to the vehicle with side impact airbags deployed but no driver space intrusion or window starring. The patient is complaining of chest wall and abdominal pain and you notice red markings on the patient where the seat belt would have been. There is no other significant trauma noted to the patient other than a few minor abrasions on his hands and face.