Site Visit Chart Selection

Goal: to select charts that illustrate the functioning of the Trauma System within the Hospital/Trauma Center

Several categories of charts are selected. Most of the charts are chosen from patients who arrived at the ED 6-12 months before the site visit. A small number of charts will be chosen from patients who arrived at the ED 3-6 months before the site visit.

The following charts are selected from those patients who arrived at the ED 6-12 months prior to the site visit date.
1. Random selection of 5 charts from each month.
    Criteria: Five charts per month will be chosen randomly (using a random number generator) from the above-described 6-month period.
2. Burns: 5 who were transferred to a Burn Center, 5 who were not transferred. For those hospitals with Burn Centers (UNC, NC Baptist), 5 charts for patients who were transferred to the Burn Unit from the ED, 5 charts for patients sent to the floor from the ED.
    Criteria: ICD9 codes of 940-949.5. Preference given to 2nd or 3rd degree burns to face and hands (940.0, 941.00-941.07, 941.10-941.17, 941.20-941.27, 941.30-941.37, 941.40-941.47, 941.50-941.57), or burns to large body surface areas ($\geq$ 15%) (ICD9 = 948.2-948.9 [20%-100%]).
3. ED Deaths (10)
    Criteria:
    a. Primary: ED Disposition = OR or ICU, hospital LOS $\leq$ 1, and hospital disposition = Death.
    b. Secondary: ED Disposition = Death or DOA. Records with a SBP or pulse less than 10 or pre-hospital CPR are excluded.
4. Hospital Deaths (10).
    Criteria:
    a. Nine charts where hospital disposition = Death. Falls from level ground (ecode = 885, 886.9), burns (ICD9 codes = 940-949.5), and GSW wounds to the head (chief complaint = GSW, mechanism of injury = Penetrating, and diagnosis codes indicate open wound to head with injury to brain: 800.6-800.8, 801.6-801.8, 803.6-803.8, 804.6-804.8, 851.1, 851.3, 851.5, 851.7, 852.1, 852.3, 852.5) are deleted.
    b. One chart where hospital disposition = Death with GSW to head.
5. ISS $\geq$ 35 (10)
    Criteria: ISS $\geq$ 35. For Level 3 centers, use ISS $\geq$ 25, with preference given to patients who are not transferred and have head injuries with AIS(head) = 5, or who are transferred and have ED LOS > 4 hours. Also for Level 3 centers, look for ISS at the hospital to which patients were transferred (transiss) $\geq$ 35.
6. Head injury (10)
    Criteria: Don't exclude patients with positive ETOH.
    a. Epidural or subdural hematoma (ICD9 = 852.0-852.5).
    b. Two to three records randomly chosen from records where GCS = 5-8.
7. SCI (5)
    Criteria:
    a. ICD9 code in 806.0 – 806.79, with hundredths place digit $\neq$ 0 (actual injury to spinal cord).
    b. One chart with spine injury without SCI: ICD9 code of 805.0-805.9.
8. Penetrating chest trauma (10)
    Criteria: ICD9 code = 860.1, 860.3, 860.5, 861.10-861.13, 861.30-861.32, 862.1, 862.3, 862.9, ISS $\geq$ 9, AIS(chest) $\geq$ 3
9. Penetrating abdominal trauma (10)
    Criteria: ICD9 code of 879.2 – 879.5. Especially GSW to abdomen.
10. Blunt abdominal injuries (liver and spleen) (10)
    Criteria:
    a. 5 blunt liver injuries (ICD9=864.01-864.04: Injury to liver without mention of open wound into cavity)
    b. 5 blunt spleen injuries (ICD9=865.01-865.04: Injury to spleen without mention of open wound into cavity)
11. Trauma during pregnancy (5):
    Criteria: Dcode = V22, V22.0, V22.1, V22.2, V23. Preference for cases with trauma to the mom (ICD9 code in 800-959.9 range) with ISS $\geq$ 9.

12. Pediatric (10)
    Criteria: Age lt 16 and
    a. ISS > 15 (6-7)
    b. ISS ≤ 15 (3-4)
13. Aortic transection (3)
    Criteria: ICD9 code = 901.0, 902.0
14. Open tib/fib fractures (3)
    Criteria: ICD9 code = 823.12, 823.32, 823.92, 821.1, 821.3
15. Severe pelvic fractures (6)
    Criteria:
    a. Three from ICD9 code = 808.43, 808.53 (Multiple pelvic fractures with disruption of pelvic circle, closed and open)
    b. Three from ICD9 code = 808.0 – 808.1 (Acetabulum fractures, closed and open).
16. Multi-system organ failure (5)
    Criteria:
    a. Primary: Ventilator days (Ventdays) > 2 weeks, GCS ≥ 8. Preference given to blunt or penetrating chest or abdomen trauma (ICD9 code in .860.0 – 866, 879.2-879.5)
    b. Secondary: ICD9 code = 958.4, 958.5
17. ED arrival time between midnight and 6:00a
    Criteria: ED arrival time between 00:00 and 06:00
    a. Primary: Trauma alerts
    b. Secondary: ISS gt 15
18. If total number of charts from the above categories is less than 100, then fill in with the following categories:
    a. If Level 3, then evenly divide the charts between the following categories:
        1) Admission to non-trauma service
        2) AIS(head) > 3
        3) Transfer to Trauma Center
        4) ED dwell time (ED LOS) > 4 hours
        5) ISS > 15
        6) ICU LOS > 3 days
    b. For Level 1 or 2 Trauma Center, evenly divide the charts between the following categories
        1) Admission to non-trauma service
        2) ED dwell time (ED LOS) > 4 hours
        3) Transfers to hospitals other than Burn Centers.

The following charts are selected from those patients who arrived at the ED 6-12 months prior to the site visit date.
1. All ED deaths, excluding DOAs as defined by SBP or pulse less than 10 or record of pre-hospital CPR.
    Criteria: ED disposition = Death, DOA and SBP ≥ 10 and pulse ≥ 10 and pre-hospital CPR = Not Done/Doc.
2. All hospital deaths
    Criteria: Hospital disposition = Death and ED disposition not = Death, DOA.
3. Pediatric transfers
    Criteria: Age lt 16, ED or hospital disposition = Transfer.
4. Transferred patients (from ED or hospital).
    Criteria: ED or hospital disposition = Transfer.
5. Burns with trauma
    Criteria: ICD9 code in 800.0-940.0 or 950.0-959.9 (Trauma) and ICD9 code in 940.0-949.9 (Burn)

Calculation of Time to OR: Time to OR = ED discharge time - ED arrival time where ED disposition = OR.