Sub-optimal encounters due to ED/System overcrowding

Below are some of the sub-optimal/adverse events that Triage Liaison Physicians (TLP's) took the time to document on the overcrowding sheet. Dates and patient hospital numbers were collected, and are available for all events below. Some important considerations:

- Data collection was for adults only.
- Data collection was intermittent, due to this being a new role for the TLP. Unfortunately, a form was not completed for every TLP shift.
- These events are for the month of January 2008 – and collected at the urging of Capital Health administration so they can be informed of how overcrowding is impacting our ability to deliver timely and safe care.
- The number of EIP's and total number of patients in the department on any given day are available separately.
- It is important to note that TLP's varied greatly in collecting this data, and the data was usually only collected for the 10-1800 TLP shift. As such, this is likely only a sampling of what the department is like at any given moment. As well, these examples fail to capture any events for times when there was no TLP to possibly mitigate the outcomes.

Documented Events (as written on the forms):

- Significant cardiac ischemia, only place to assess was triage assess, admitted to CCU direct from waiting room
- COPD'er with heart rate of 150, ongoing CP and SOB – in waiting room for 3hrs before bed available
- Patient with a spontaneous pneumothorax, SOB, in WR >2hrs
- Patient with new onset of Liver Failure NYD, K=1.7, in WR >2hrs
- Patient with severe RUQ pain, to ultrasound from WR, dx = severe cholecystitis, in WR 2.5hrs
- Multiple triage category 3 patients with significantly prolonged waits
- EMS patient, developed ST elevation on stretcher with crew in WR – direct to the cath lab from WR
- Abdo pain patient, seen by TLP day before, labs ordered, but left from WR prior to completion of work-up, returned next day and diagnosed with an appendicitis
- Severe chest pain, rule-out PE – no bed to treat patient in, unable to treat pain
- Fractured hip, severe pain, no where to off-load patient.
- Moaning in pain, on EMS stretcher, nowhere to off-load patient
- Triage category 2, end stage CA, syncopal, nowhere to offload patient
- Patient with a peritonsillar abcess - drained in WR
- No bed available for examination, labs and ultrasound performed from WR, admitted by general surgery while still in WR
- Patient needing endoscopy for query bowel perforation/sigmoid volvulus, no bed to examine patient, went to endoscopy from WR, uncertain if patient had to return to WR post endoscopy

- Multiple chest pain patients in WR, no beds available for exam
- Patient in WR with C-spine fracture, identified by TLP and then expedited for CT from WR
- Elderly female in WR > 5.5 hrs with significant bowel perforation and free air
- Patient in Stony Plain Hospital with Trop > 9.0. Query PE versus MI? Wanting to transfer but no beds in region for transfer
- Patient with rapid A-fib in WR
- Patient with Chest Pain while shoveling snow, left without being seen
- Patient with rapid A-fib in WR >2hrs, had syncopal event and rushed to A-pod
- High speed MVC patient, with EMS crew >1hr in WR, had a femur fracture
- Transfer from Camrose with query ischemic bowel – accepted direct to surgery despite no surgery beds available in hospital, waited in WR for 2hrs with EMS
- Patient with urosepsis transferred from NECH, despite no bed available, on abx and fluids, waited 3.5hrs with EMS crew until bed available
- Multi-trauma patient, in WR >2hrs on spine board
- No ICU beds in region, 3 admitted ICU patients in department

Sub-optimal encounters due to ED/System overcrowding - February

Below are some of the sub-optimal/adverse events that Triage Liaison Physicians (TLP's) took the time to document on the overcrowding sheet. Dates and patient hospital numbers were collected, and are available for all events below. Some important considerations:

- Data collection was for adults only.
- Data collection was intermittent – and for many days forms were not completed due to confusion as to how data should be collected. (Days without completed forms does not equal days without poor events)
- These events are for a portion of the month of February 2008 (February 12th – 22nd)
- Other important overcrowding data points can be automatically drawn from the database, such as: number of EIP's, department volumes, number of EMS crews waiting, number of any given triage level in the department and/or waiting room, left without being seen, and so on.
- It is important to note that TLP's varied greatly in collecting this data. As such, this is likely only a sampling of what the department is like at any given moment. As well, these examples fail to capture any events for times when there was no TLP to possibly mitigate the outcomes.

Documented Events (as written on the forms):

- 51yo F with a fractured wrist requiring reduction – significant delays in pain management and fracture reduction due to no bed available
- 86yo F with fracture humerus, had a syncopal event in a wheel chair in the WR due to pain, prolonged wait to get a bed
- 58yo M with obvious dehydration and an elevated creatinine, >3hr delay in providing IV rehydration and treatment
- Triage Level 2 patient with Nasal Cancer, COPD/SOB, on oxygen, waited in WR > 5hrs to get into a bed for assessment and treatment. (Then spent 48hrs in the ED with no admission – receiving treatments like Bipap, IV lasix, Nebs, and O2.)
- Patient with significant hypoxia secondary to pneumonia transferred from Stoney Plain to ICU – despite no ED beds to assess and treat patient, and no ICU beds to admit patient.
- Patient with cystic fibrosis/asthma accepted directly to pulmonary from Camrose, despite no pulmonary in-patient beds available. Emergency physician and ED not informed of patients expected arrival, and significant overcrowding was already an issue in the department.
- An elderly female sent by her family doctor with shortness of breath, was in hypertensive crisis and florid congestive heart failure and waited greater than 3 hours to get a bed to be assessed and treated.
- An elderly patient with ataxia and stroke like symptoms registered at 10:39, and was still waiting at 1600 to get a bed to be assessed and examined. When patient was finally assessed they were found to be significantly dehydrated, and went on to have a significant myocardial infarction.
- A young healthy female with an acute allergic reaction, who had significant stridor and SOB was off-loaded from an EMS crew to F-pod (our non-monitored, non-acute, fast track area) as that

was the only place treatment could be initiated within our department. Patient ended up requiring IV epinephrine and prolonged monitoring.

- Patient with a known history of colitis, in WR >5hrs with significant abdominal pain, increased WBC, and anemia.
- Patient presenting with CP, had a history of previous MI, in WR >6hrs. TLP work-up identified a sodium = 117, AST = 582, and a Bili = 42. Epigastric/abdo pain not differentiated when TLP left at end of shift.
- Recorded by 0600 shift Doctor: arrived at 0600, multiple patients in WR with prolonged waits, NO FREE BEDS IN ENTIRE ED to see patients. Saw two complex elderly patients with significant pain who filled the two existing triage assess beds (so had no area to even do triage ECG's). Assessed five patients from a chair in the alcove beside E-pod (a non patient care area with no curtains or equipment). Saw my first patient in an ED bed at 0845 in A1. A patient with a drug overdose and seizure arrived with EMS at 0549, and finally got into an ED bed at 1100 for assessment and treatment. I saw three patients in a proper ED assessment area during my entire shift.
- A patient presented with a VP shunt complication, and had to be placed in the WR for a prolonged wait. This patient was sitting in the WR with a VP shunt sticking out of her head.
- 81yo F with CP, with dynamic lateral ST depression changes on ECG, had to be placed in WR as no beds to assess patient. During that day there was an EIP in the department who had been an admitted ED patient for > 4 days.
- 29yo M with CP and SOB, had a prolonged wait in WR as there were more complex elderly patients with prolonged waits in WR who the triage nurses had to triage ahead of this young stable patient. This patient ended up presenting with a missed MI.
- 55yo M with hoarse throat and difficulty swallowing. Presumed Epiglottitis, no acute area available to properly assess and treat patient.
- 84yo F arrived with EMS crew and experienced significant wait. Had a Seizure in the ED waiting room while waiting with EMS crew.
- Patient with a perforated viscous and surgical abdomen awaited with an EMS crew >4hrs to get into an assessment and treatment area.
- Patient with a retroperitoneal bleed, hematuria, temperature of 39.1, transferred from Stoney Plain despite no beds available, was in WR > 3hrs awaiting an ED bed. At the time there were 27 patients in the WR and 25 EIPs (and a large number of pending EIPs).
- A patient with a seizure was in the WR >5hrs awaiting assessment and treatment. When I finished my TLP shift, patient was still not in a bed. It was a miserable day. On that day there was an EIP in the department who had been an admitted patient in the ED for 1 whole week!
- A patient who was direct to ICU three days ago was still in the department as an EIP.
- Transfer patient direct to neurology with a Troponin of 1.23 had to be placed in the WR, along with 29 other patients in the WR. There were ZERO beds available in the department for patient assessment and treatment.
- Patient presenting with a seizure in the WR >9hrs.
- 78yo with symptoms suggestive of a CVA, waited >5hrs and then LEFT WITHOUT BEING SEEN

- Patient with a fractured/dislocated ankle, with significant skin compromise and requiring emergent sedation and reduction, had to be placed in the WR for 2hrs.
- Patient who had a CT performed from the WR had a subdural hematoma with intra-parenchymal bleed. This patient was in the WR >3hrs.
- 73yo with a possible GI bleed, registered at 1527 and was still in the waiting room at 2400 awaiting a bed for assessment and treatment.
- 76yo male with significant back pain waited >10hrs for assessment and treatment. On the same day >20 patients LEFT WITHOUT BEING SEEN. When I left my shift at 2400, there were 28 patients in the WR, 2 triage level 2's, and 23 triage level 3's! From a physician and personal point of view I feel helpless in the TLP role (when the overcrowding is this bad, even the TLP role becomes non-functional).

Sub-optimal encounters due to ED/System overcrowding – February/March

Below are some of the sub-optimal/adverse events that Triage Liaison Physicians (TLP's) took the time to document on the overcrowding sheet. Dates and patient hospital numbers were collected, and are available for all events below. Some important considerations:

- Data collection was for adults only, at the University of Alberta Hospital only.
- These events were recorded from February 22nd – March 11th, 2008.
- Other important overcrowding data points can be automatically drawn from the database, such as: number of EIP's, department volumes, number of EMS crews waiting, number of any given triage level in the department and/or waiting room, left without being seen, and so on.
- It is important to note that TLP's varied greatly in collecting this data. As such, this likely represents only a sampling of what the department was like at any given moment. As well, these examples fail to capture any events for times when there was no TLP to possibly mitigate the outcomes.

Documented Events (as written on the forms):

- Elderly patient with 2 syncopal events, prolonged wait with no ED care space to assess or treat patient.
- Patient ultimately diagnosed with a DVT in left leg who registered at 0803, not seen until 1455, and when seen was assessed by the TLP in the waiting room. No care spaces to properly assess and treat the patient.
- Patient with RLQ pain, working diagnosis of appendicitis, CT and full work-up by TLP in waiting room, ultimately admitted from waiting room.
- Patient with undifferentiated pelvic pain, registered at 1110, still not in a room by 1730.
- Patient with liver failure and decreased LOC secondary to suspected acetaminophen overdose. Required hepatology consult and close monitoring, but no bed available. Patient ended up going direct to ICU from waiting room (incidentally taking the last open ICU bed in the entire region).
- Significant delays in access to radiology. An elderly patient with signs and symptoms compatible with an atypical CVA was consulted to neurology at 0314, no disposition by 1630 the next day, as still unable to get emergent MRI.
- Large number of patients with extensive delays in getting urgent ultrasounds to assist with diagnosis and treatment. Four specific patients took > 6hrs to get timely ultrasounds, during daytime functioning.
- Patient with cyclical vomiting syndrome, and significant dehydration secondary to ongoing vomiting, spent > 6hrs vomiting in the waiting room awaiting an emergency bed to initiate his gastroenterologist's suggested treatment regime.
- Polypharmacy drug overdose patient who was tachycardic and presented with a decreased level of consciousness was left in the waiting room due to no beds available for assessment and treatment. Upon significant deterioration in heart rate and respiratory rate an A-pod bed was made available to assess and treat the patient.

- Elderly patient with cancer presenting with significant abdominal pain and an obstructed ureter to his solitary kidney, had to be placed in the waiting room for a prolonged wait with no ability to give analgesia.
- 17yo male with pancreatitis and severe abdominal pain, in waiting room for a prolonged period, no beds available to assess, treat, or give analgesia.
- Multiple patients with fractures and significant pain, in waiting room without analgesics or reductions.
- Over 28 EIPs with no movement in the department. 77 year old male confused, weak, and unable to stand arrived via EMS. Waited > 5 and half hours with EMS with no bed to examine or treat the patient in. This patient clearly required work-up, active treatment and admission.
- 51 year old male presented with chest pain and took more than 50 minutes to get an ecg (due to no patient care area to actually do the ecg). Ecg was clearly abnormal, and cardiology admitted the patient with an acute myocardial infarction from the waiting room. The patient was never assessed or provided treatment within an ED bed.
- 67yo female with significant edema secondary to congestive heart failure and renal failure, recently discharged from hospital, had to be assessed in a wheel chair in the waiting room (no triage assess beds available for assessment even). Awaited over 3 hours for initial assessment by TLP, and clearly needed admission. Still awaiting bed when TLP left shift 8 hours later.
- Patient referred with dysuria, weakness, and looking unwell. Sent in with acute renal failure (Creatinine = 1200), acidotic, hyperkalemic (K = 5.8), and WBC of 24. Arrived at 1420, seen by TLP at 1726, no ED bed available for obvious admission until 1830.
- 91yo with chest pain and feeling unwell, arrived at 1512, seen by TLP at 1906 who assessed the patient to be in rapid sinus tachycardia. Took until 2106 to get patient into a bed for cardioversion of her rapid PSVT.
- Young previously healthy male with new onset shortness of breath on exertion after a recent airline flight, took > 3 and a half hours to get into an assessment area. Found to have multiple large pulmonary embolisms. Prolonged delay in any treatment due to overcrowding.
- 79 year old male registered with abdominal pain at 2202, still in the waiting room and awaiting a bed at 0305 when I left my shift.
- Patient with a fractured hip, waited with EMS > 4 hours for a bed and treatment. At that time there were 8 EMS crews waiting to off-load patients, and three other sick EMS patients who had already been offloaded. Additionally, there were 7 pediatric patients utilizing adult acute care beds due to significant pediatric ED overcrowding. Also, multiple direct to consulting service admissions with no notification of ED personnel.
- 56 year old female with a fractured hip waited with an EMS crew > 3hrs for assessment and treatment.
- Multiple direct to orthopedic and plastic surgery patients, despite severe ED overcrowding and no beds available for those services within the hospital.
- Elderly patient with a prolonged syncopal event from a nursing home. Registered at 1151, and was in the waiting room greater than 2 hrs with EMS. At 1400 he experienced a change in mental status, and when rushed to a resuscitation area was found to have a massive intracranial hemorrhage. Patient died very shortly after arriving in a patient care area.

- A UAH staff physician presented with chest pain. Received his entire work-up in the waiting room (>6hrs) and never saw an emergency bed.
- Patient with significant shortness of breath and pulmonary embolism waited >4hrs for assessment and treatment.
- Young healthy female with significant abdominal pain and increased WBC sat in the waiting room for >8hrs with no assessment, treatment, or analgesics. Department was particularly crowded, and Internal medicine had capped their admissions, and were not admitting any further patients.
- Healthy male with a traumatic brain injury and first time seizure, transferred from periphery, sat in waiting room >2hrs with intra-cranial contusions and hemorrhage. At the start of my shift there were 31 EIPs and 7 patients requiring definite admission out of our 42 ED beds.
- A patient with nausea, vomiting, and diarrhea waited >7hrs to get a bed for assessment and treatment.
- Patient with DKA was treated to the best of the TLP's abilities in the waiting room for more than 2hrs before a bed was available.
- Patient with RLQ pain, peritoneal findings, and ultimately diagnosed with appendicitis waited >4hrs to get a bed.
- A patient who was an EIP for a prolonged period arrested unexpectedly in the ED.
- Started shift at 0900, as TLP, with ZERO patients in the waiting room. Unfortunately there were over 30 EIPs, and very few of them ultimately got beds. By the time I left my shift at 1700, there were over 30 patients in the waiting room – many of them with chest pain and shortness of breath. If the EIPs had of been moved out of the department we could have easily provided timely, standard, quality care to the patients who arrived.
- 46yo male with previous DVT presented at 1246 with SOB. Full work-up in waiting room with V/Q and CT scans done. Ultimate diagnosis of PE, and still no bed for assessment 11 hours later.
- 62yo Male presented with burning chest pain and previous MI. Unable to perform ECG for >85 minutes, which showed dynamic changes. Still took > 2 hours to then get the patient with unstable angina into an assessment area for treatment.
- Patient arrived with cough, fever and previous history of lung abscesses. No beds in department for assessment and treatment. After prolonged wait, discussed case with staff pulmonologist who recommended admission. Due to extensive overcrowding and lack of beds the patient was ultimately discharged home and brought back the next morning for a bronchoscopy and pulmonary reassessment.
- Patient with chronic diarrhea and worried about reoccurrence of electrolyte abnormalities. Prolonged wait and presented to triage numerous times requesting assessment. Ultimately left to be assessed by her family doctor at a later date, as patients vitals were normal, and the wait would have likely been >12hrs longer.
- Patient with history of previous cancer arrived at 1200 with symptoms of a bowel obstruction. X-ray done while still in waiting room confirmed SBO. Ultimately examined in hallway on a stretcher placed there temporarily at 1800. CT then showed large pelvic mass and SBO. Finally got a bed within the ED at 2100 and then admitted as an EIP to general surgery subsequently.

- 91 year old female presented at 1711 with chest pain. Due to significant overcrowding she did not receive an ECG until 0011 when she finally got a bed within the ED. Her ECG showed clear ischemic changes and she had a Troponin of >103. It should be noted that at all times there were 20-40 other patients in the waiting room, and patients who were triaged as sicker were given priority for assessment and the few beds available. This case clearly underscores the need for ED beds and formal assessment of all patients who present to the ED.
- Young healthy patient recently discharged post spontaneous pneumothorax presented again with significant shortness of breath and obvious signs of recurrent pneumthorax. Only place to assess and treat patient was a non monitored non acute fast track area. Patient was ultimately admitted to thoracics with a moderate sized pneumothorax requiring pleuradeisis.
- 79yo male with weakness and collapse brought in by EMS at 0604. He was off loaded to the EMS consolidation area (a hallway between the ED and radiology) and finally received an ED bed at 1720. He was ultimately admitted to internal medicine.
- 65yo male presenting with chest pain at 1147, finally got a bed for assessment and treatment at 1925. During this shift there were NO C-pod beds available for >11hrs to see new patients.
- 58yo male with Chest pain and a positive troponin in WR > 2hrs due to no beds for treatment and assessment.
- Patient with a previous liver transplant, presenting with nausea and vomiting and syncope, registered at 0940 and still not in a bed for assessment or treatment at 1900.
- 26yo male presenting with GI bleed registered at 0926 and still not in a bed at 1915.
- Patient with a recent CABG and valve surgery presented at 1052 with SOB, left at 1357 as frustrated with wait. Returned at 1842 with increasing SOB. At that time he was found to have significant vital sign changes and was diagnosed with a massive pericardial effusion and cardiac tamponade, which subsequently caused him to arrest shortly after getting into an ED bed. This patient had significant morbidity, and near mortality, that could have been prevented if a bed had of been available upon his initial presentation.
- 62yo male with an acute appendicitis. In the waiting room > 6hrs, and CT, diagnosis, and full work-up done in the waiting room.
- An elderly patient with urosepsis, hypotension and an MI was transferred from the Edmonton General Hospital without a physician assessing her or discussing transport with anyone at the UAH ED. At the time there were 32 patients in the waiting room, and 8 of them were triage level 2's.
- Patient with first time generalized seizure in waiting room > 8hrs prior to assessment.
- Arrived for 0000 overnight shift and there were 25 EIPs, with 10 patients pending definite admission (35 out of 42 beds blocked). At 0000 there were 24 patients in the waiting room waiting to be seen, and 6 of them were triage level 2's. Four of these triage level 2 patients presented with chest pain and had registered at 1835, 2000, 2031, and 2319. They were all completely undifferentiated, and had untenably prolonged waits.

Sub-optimal encounters due to ED/System overcrowding – March-June

Below are some of the sub-optimal/adverse events that Triage Liaison Physicians (TLP's) took the time to document on the overcrowding sheet. Dates and patient hospital numbers were collected, and are available for all events below. Some important considerations:

- Data collection was for adults only, at the University of Alberta Hospital only.
- These events were recorded from March 12th to June 12th, 2008.
- Other important overcrowding data points can be automatically drawn from the database, such as: number of EIP's, department volumes, number of EMS crews waiting, number of any given triage level in the department and/or waiting room, left without being seen, and so on.
- It is important to note that TLP's varied greatly in collecting this data. Documentation has slowed in the last 3 months as these examples are daily occurrences, and there is a general sense of frustration at the futility in continuing to document these suboptimal outcomes in the face of no improvement over the last 6 months (the period for which we have been documenting these substandard and sub-optimal waiting room events and outcomes).

Documented Events (as written on the forms):

- Patient with chest pain, previous history of an MI, had entire 8hr work-up and blood work in the waiting room. Never made it to a patient care area.
- Patient with chest pain and ischemic changes on the ECG, no place in the entire ED to move the patient to for treatment.
- Elderly patient with abdominal pain and peritonitis in WR >7hrs with no treatment or place to care for patient.
- Elderly patient with urosepsis and confusion, no place to assess or treat.
- Patient with severe COPD and ++ short of breath, high risk for a possible PE, triage level 2, in WR > 5hrs prior to having a bed to be assessed or treated.
- Patient with an acute appendicitis prolonged wait in WR, no beds for analgesia or treatment.
- Patient with acute diverticulitis and severe abdominal pain, in WR for prolonged period with no bed for assessment, analgesia or treatment.
- Young patient with RLQ abdominal pain and suspicion for appendicitis, in WR > than 9hrs before bed available for assessment and treatment.
- Elderly patient with a temperature of 38.7, dehydrated and tachycardic, looked unwell, in WR >2hrs before TLP could assess. Fluids and Abx ordered in WR but > 2 more hours delay in administration of same due to overcrowding, lack of nursing resources, and space to treat patient.
- "ED nursing staff completely overwhelmed all day" due to volumes and lack of space to care for patient.
- Patient with ischial ulcers, septic and systolic BP of 80, sent from ID clinic at 1045, in WR for prolonged period. Had multiple consults and despite being septic and clearly requiring admission, still not admitted by 1700 the same day.

- 86yo patient with dislocated hip and in obvious pain, registered at 1212, no care area to be assessed and treated until 1317.
- Multiple patients accepted direct to numerous consulting services despite severe overcrowding and no beds in ED to assess or treat them.
- Significant delays in inter-hospital transfer to get stable patients back to peripheral hospitals.
- Over 27 EIPS as well as pending admissions of: an intubated cardiac arrest, an intubated burn patient, a young male with severe Steven's Johnsons, and a significant GI bleed. Discussion with executive on call and 22 FCP beds available in hospital but NONE utilized due to in hospital nursing/staffing issues. FCP completely ineffective in alleviating ED overcrowding.
- Patient with CP, ST Elevation MI on ECG – registered at 1105. No beds available to place patient in the department until 1140. CAEP standards for door to needle time for thrombolysis of 30 minutes clearly not met.
- Elderly patient with CVA – within the window for potential thrombolytic therapy – no beds in department. Patient received CT and blood work in WR and missed opportunity for possible treatment. At time 29 EIPs, and 35 undifferentiated patients in the WR.
- A patient with pneumonia and requiring 10L of oxygen in WR, admitted to hematology in the waiting room. Patient in WR hours prior to receiving an ED bed for ongoing treatment and care.
- "Terrible day, lots of EIPs and no flow". Multiple prolonged waits in WR with no care for significant periods of time.
- Septic patient registered at 1352. No bed to assess and treat patient until 1700. Eventually admitted to ICU. Clearly did not receive any Early Goal Directed Therapy standards.
- "Few EIPS – and as a result the department ran smoothly" with no significant delays to care or sub-optimal outcomes in the WR.
- Called about a confused and combative patient in periphery, doctor unable to give full set of vitals or chem-strip. Told to get vitals and call back through the critical care line. No call back, and patient arrived at our department 2.5hrs without formal transfer or acceptance at our site.
- Patient with an NSTEMI in the WR – CP and Trop of 2.2. In the WR for prolonged period of time before bed available for assessment and care.
- 2 different patients with Renal Colic and significant pain in the WR > 8 hrs each, with no bed for assessment or treatment.
- Full Chest pain protocols (repeat 6 hour troponins and blood work) completed in WR with no bed available for formal assessment and care.
- New diagnosis of a brain tumor had to remain in the WR for prolonged period of time.
- 80yo patient with shortness of breath offloaded to CHEMS hallway for > 12 hours without getting a bed for assessment or care.
- 66yo with numbness and weakness and likely first presentation CVA – registered at 1556, still no bed for assessment and treatment at 0000.
- Patient with generalized edema and new onset renal failure (Cr=285), in WR > 6hrs and still no bed available.
- 61yo female sent from family doctors office with query incarcerated hernia and abdominal pain, in WR > 7hrs with no bed available for assessment, analgesia, or treatment.

- Numerous EIPs in department and in WR – contacted TLP at the RAH and they were in exact same situation. Unable to properly care for patients. Contacted hospital and regional executives on call for assistance – ultimately no movement occurred, and the department remained gridlocked.
- 85yo female with a hip fracture, no orthopedic resident on call. Formal consult at 0300 to orthopedic staff. Still no consultation, orders, or admission at 1000 the next day.
- Patient with known CAD and pending admission for a CABG – registered with CP at 0823, no bed available for assessment and care until 0949.
- 7 EMS crews in WR for prolonged period of time with no movement – including a patient with an acute-on-chronic subdural, and a ventilator dependent patient with acute hemoptysis who registered at 1200 with no bed available until 1540.
- Patient with an acute ++ shortness of breath, suspicious for spontaneous pneumothorax, registered at 1152, only care area was an unmonitored chair at 1530. Ultimately got a chest tube and transfer to RAH Thoracics for their pneumothorax.
- 33yo male with first time generalized tonic clonic seizure in WR > 4hours prior to care area for assessment and treatment.
- Same TLP Shift: a patient actively seizing in the WR – given Ativan and bagged in middle of WR, went to CT post-ictal and still no bed available on return. Two different patients with acute Pulmonary Embolisms in WR with no ED beds for care. Acute appendicitis diagnosed in WR with no bed for treatment or care.
- "Came onto shift with >30 EIPs and >40 patients in the waiting room. The department was completely unsafe." There was a post-ictal patient with a GCS of 4 waiting with EMS for >90 minutes, his CK was ultimately >40,000. A patient with an acute appendicitis waited > 5hrs for a bed, developed a fever and deteriorated while waiting. A UofA professor waited for hours in the WR with CP, ultimately had a PE diagnosed. Multiple patients with chest pain had their entire work-ups (repeat 6 hour tropinins) in the WR.
- Patient transferred from out of region with RLQ pain and query appendicitis, arrived at 0645. Finally managed to get into an ED bed at 1252 when the ultrasound showed a new large mass in the RLQ.
- At 2200 – 24 EIPs with 9 pending admits, told we would get no movement or utilization of the FCP beds as "wards unsafe".
- Patient with acute pancreatitis arrived with EMS at 1430, no bed available until 2330. Vomited >10x in WR, ongoing 10/10 abdo pain throughout.
- 79yo male with chest pain, CTAS level 2, waited >10hrs for a bed for assessment and treatment.
- Patient with GI bleed and hemoglobin of 59, >3hrs to get a bed for assessment and treatment.
- 31 EIPs with 10 more definite admissions, and Neurosurgery accepted a stable patient with a new brain tumor from the GNH ED despite nowhere in our ED to accept the patient.
- Patient with a deep muscular abscess requiring drainage, never got to a care area, admitted to ortho from the WR.
- Two patients downloaded to CHEMS hallway > 8hrs with no proper care area to assess or treat, both elderly and both ultimately admitted.

- 75yo male with significant back pain, waited hours, ultimately asked the triage nurse to call EMS for him so they could take him from the WR to another ED. Patient ultimately left AMA.
- Patient sent from the MIS with a fracture direct for ortho, after >5hrs in the WR he called patient complaint's from the WR to register a complaint.
- 4 patients with chest pain, all triage level 2's, all waited >5 hrs for a bed for assessment and treatment.
- Patient with an ankle fracture/dislocation with tenting of the skin requiring emergent reduction, waited >4hrs to be seen. Ultimately was seen in CHEMS HALLWAY for reduction.
- Young patient with significant pelvic pain 2 days after a therapeutic abortion. Query uterine perforation. Only place to assess pt was a chair after prolonged wait.
- Patient with CVA, arrived within the thrombolytic window. No bed for >80 minutes, and was out of therapeutic window when he got one.
- Patient with a posterior circulation CVA, offloaded to CHEMS hallway, and not seen for >90minutes. Presented within the therapeutic window but wasn't in a care area within time for treatment.
- Patient was assaulted, came in confused and combative. Arrived with Parkland EMS who refused to take patient to CT from WR. Ended up being on the spine board for >5hrs before patient could be properly assessed and treated.
- Elderly patient arrived via EMS, placed in CHEMS hallway. Prolonged wait and ended up leaving without being seen from the hallway. No physician ever saw her or was notified that she was leaving prior to assessment.
- Patient with lymphoma and query new CVA symptoms. No care space in department. Stroke team assessed and did work-up and admission from waiting room.
- 63yo M arrived with chest pain and SOB at 0955. Only care space available was an unmonitored space in F-pod at 1100. Found to have an NSTEMI and a trop of 4.87. Even upon diagnosis of NSTEMI prolonged time to get patient to a monitored and appropriate care space.
- 58yo F with left sided weakness and CVA symptoms. Stroke team saw and did complete work-up from waiting room.
- Patient with a drug overdose, brought in by EMS, downloaded to CHEMS hallway, ultimately found to have RR of 4 and to be hypoxic. Given Narcan in CHEMS hallway, no monitored care space to transfer patient to.
- Patient with a first time seizure who arrived with EMS at 0858. In WR had another seizure with EMS, no care space available, despite active seizing, until 0948.
- 78yo Male with SOB and dyspnea, arrived 1304, no bed available for > 2hrs, had an NSTEMI with a troponin of 3.87.
- 88yo female arrived with EMS at 1328, complaining of change in speech and CVA like symptoms, no care area for assessment and treatment. During wait in WR with EMS awoke at 1710 with complete right sided hemiparesis and an acute CVA – out of the therapeutic window by hours when bed finally available.
- Arrived at 0600 to 28 EIPs, and 4 more patients requiring definite admits. During my eight hour shift no EIPs moved out of the department, there were only 2 ED beds ever available for assessment and treatment of patients (there were 4 chair areas intermittently available). During

this shift I had to treat a narcotic overdose with Narcan in the WR. Also another patient had a seizure at home, came in with EMS, and had multiple seizures in the WR with EMS.

- No ICU beds in region. Over 8 hour shift half of all A-pod beds were taken up with acutely ill ICU patients that required constant ICU staff presence and intervention for the entire shift. The lack of critical care beds in the region significantly impacted and ED's ability to care for our own patients.
- 58yo male with rheumatoid arthritis who was on methotrexate developed an acute abdomen in the WR, was seen by general surgery in WR, and ultimately went straight to the OR from the WR. Never got into an ED bed for assessment and treatment.
- "35 EIPs and 45 undifferentiated patients in the WR at 2300, completely unsafe and frustrating shift." An example of the many patients with substandard care due to overcrowding: An elderly patient with COPD and community acquired pneumonia, prolonged wait in WR, only bed to initiate treatment (O2, fluids, Antibiotics) was unmonitored bed in F-pod. Ultimately deteriorated and required intubation.
- Patient with CP, investigated fully in the WR, ultimately found to have an NSTEMI and a Troponin of 4.0. This was at 1700 when there were 35 EIPs and >40 patients in the WR still to be seen.
- "Started shift with 36 EIPs and 38 patients in the WR. The department was very dangerous and many patients left without being seen. Patients were extremely upset and angry regarding the prolonged waits. I called the executive on call and they stated they were under the impression we only had 15 EIPs. CH administration clearly had no idea how dangerous the department was." As an example of how unsafe things were, during this time there were two patients with GI bleeds in the WR for >3 hrs each. Both of them had hemoglobins of <60. We were on psychiatry intake for the region, and we were unable to accept any regional transfers for psychiatry due to the situation.
- Patient with chest pain and an NSTEMI, found to have a positive troponin in the WR.
- Patient with chest pain and an aortic dissection in WR >40 minutes while patients were moved to make an acute care bed available.
- 61yo with hip pain, unable to ambulate after fall. Registered at 1047, no bed until 1526, had a hip fracture.
- 21yo with renal colic and a 10mm stone. Entire work-up and consultation from WR.
- Started shift at 1400 with 29 EIPs. First three patients I saw had waited >12 hrs. A patient with RLQ abdo pain and query appendicitis, registered at 0200, received a bed and first assessment at 1400. Patient with an active GI bleed waited 12.5 hours for a bed ultimately admitted and found to have a significant bleed.
- Patient with nausea and vomiting and acute renal failure. Registered at 1832, got a bed for assessment and treatment at 0634.
- Patient with new liver failure, jaundice and confusion registered at 1817 and got a bed at 0531.
- Elderly patient discharged from hospital 2 days prior, moaning in WR with 10/10 abdo pain waited in WR >11 hours before getting to a care space and receiving analgesia and fluids. She was ultimately readmitted.

- 96yo female who was hypoxic secondary to pneumonia, arrived with EMS at 1118, no bed until 1723.
- A patient with a large retroperitoneal bleed secondary to his anticoagulants waited in WR >15 hours for a bed and ultimate treatment - reversal of his anticoagulation and admission.
- 30 EIPs, 9 patients with EMS crews, and confused patient with large subdural in WR. Patient with active colitis and 10/10 abdo pain waited >4hrs for bed and treatment. Acute appy in WR >4hrs without assessment and treatment. A patient with sickle cell crisis admitted in non-monitered care area (F7) undergoing plasmapheresis in this fast track bed.
- Patient with new onset of acute renal failure, ultimately found to have a Creatinine = 1084, in WR >6 hrs waiting for a bed for assessment and treatment.
- Patient with a recent positive stress MIBI for unstable angina, arrived with EMS with active CP at 1107, no bed for assessment and treatment until 1710.
- Patient arrived stating suicidal at 1254, no care area for assessment, stated she was cooperative and willing to stay in WR. After prolonged wait left without being seen, unknown to triage staff, and went home and took all her meds with an intentional OD. Returned at 1857 with EMS crew post OD.
- Elderly patient with SOB and hypoxia (PaO2 = 53), downloaded to CHEMS hallway at 1200, seen by TLP at 1730 in hallway with O2 being administered improperly.
- Patient arrived with a suicide note and suicidal ideation at 1200. Didn't make a chart and due to significant overcrowding managed to leave unbeknownst to the triage staff. Returned later via EMS with a significant OD, ultimately required intubation and ICU.
- Patient accepted by liver service from Grand Prairie for work-up of possible transplant despite no beds in region for patient.
- Patient 1 day post liver biopsy with increasing abdo pain, triage level 2, waited >12hrs and ultimately left without being seen.
- Elderly patient with new onset CVA waited > 7hrs for an ED bed.
- Patient with large pleural effusion secondary to lung CA. Arrived +++ SOB, waited 7hours to be seen by a TLP who ultimately recognized patient was hypoxic with room air sats that were only 82%. Then waited 11 hours in WR for ED bed. Ultimately found to also have a sodium of 127.
- Recent discharge from GI with known ischemic colitis. Returned with 10/10 abdo pain at 1322, and no bed, analgesia, or assessment until 0349.
- Young male with recent fractured tibia, now presenting with SOB and pleuritic CP. Waited > 4 hours for unmonitored E-pod bed. Ultimately had a large PE and required admission.
- Patient presented with melena and a GI bleed, was dizzy and tachycardic at triage. Registered at 1748, and ultimately seen in a pediatric ED bed – only bed available in entire ED - at 0520.
- Patient left from WR prior to receiving V/Q results for query PE.
- Patient in WR with 10/10 abdo pain for >10 hours – unable to administer analgesics or antibiotics. Ultimately diagnosed with a diverticular abcess.
- Patient with abdo pain received full work-up in the WR, and ultimately left without receiving any treatment or the results of the blood work and ultrasound that were performed in the WR.

- “Patients in WR threatening triage nurses. Screaming that we are letting people die.” At the time there were no ICU beds in the region and we had 3 intubated patients in A-pod. No movement at all.
- “Entire C-pod filled with EIPs, no new patients seen in C-pod until 2000 for entire day. Multiple patients waited > 8hrs for any assessment or treatment.”
- “35EIPs, and absolutely nowhere to see any new patients. Had to deal with multiple calls from GP’s and consultants in the periphery trying to send in more patients. Periphery had no idea how bad our ED was. We had patients in the WR with complaints like abdo pain who had registered >9hrs earlier and still were waiting to be seen.”
- 30yo female with RLQ pain that was worse with any movement. Registered at 2053, still not in a room at 1140 the next day when she got back from an ultrasound that confirmed her appendicitis. No fluids, analgesia, or antibiotics for >15 hours. There were 31 EIPs and 7 more definite admits, and >40 patients in the WR at the time.
- Patient who has 32 weeks pregnant, felt weak and unwell, registered at 0820 and still not in a bed at 1400. Ended up leaving without being seen, so no idea what was ultimately wrong with her.
- 62yo male with chest pain and SOB, triage level 2, >5hrs awaiting a bed.
- 22yo male with headache causing syncope, triage level 2, > 8hrs for a bed.
- 85yo female with confusion and delirium registered at 0836, still not assessed, treated, or in a care area at 1630.
- 78yo female discharged with a recent small bowel obstruction within the last month. In WR with nausea and vomiting and significant abdo pain, still not in a bed 7 hours later.
- Elderly patient with a GI bleed sent from radiology department after a barium enema, waited >11hrs for a bed, treatment, and admission. At the time there were 29 EIPs and 11 pending definite admission, 30 patients in the WR and 9 of them were Triage Level 2’s – all with ++ prolonged waits.
- 96yo Female offloaded from EMS to CHEMS Hallway – confused and acute renal failure. Clearly requiring admission. Waited >8hrs for a proper assessment area to be seen and treated.
- 53yo male with chest pain, in WR >8hrs. First troponin was negative, but second troponin was positive. NSTEMI with NO treatment in WR > 8hrs. Patient could have left without being seen at any time without anyone being aware of his increasing troponin and infarct.

Sub-optimal encounters due to ED/System overcrowding – June - September

Below are some of the sub-optimal/adverse events that Triage Liaison Physicians (TLP's) took the time to document on the overcrowding sheet. Dates and patient hospital numbers were collected, and are available for all events below. Some important considerations:

- Data collection was for adults only, at the University of Alberta Hospital only.
- These events were recorded from June 16th to September 11th, 2008.
- Other important overcrowding data points can be automatically drawn from the database, such as: number of EIP's, department volumes, number of EMS crews waiting, number of any given triage level in the department and/or waiting room, left without being seen, and so on.
- It is important to note that TLP's varied greatly in collecting this data.
- Documentation has slowed in the last 3 months as these examples are daily occurrences, and there is a general sense of frustration at the futility in continuing to document these suboptimal outcomes in the face of no improvement over the last 9 months (the period for which we have been documenting these substandard and sub-optimal waiting room events and outcomes).
- These sub-optimal outcomes are only select cases in a continual decline in the standard of care for delivery of acute care within our region.

Documented Events (as written on the forms):

- Patient with chest pain, registered at 1048, triaged as CTAS level 2 with significant chest pain. At the time there were 32 EIPs in the ED, and absolutely no patient care spaces in the ED. He as seen in the waiting room by the TLP at 1120 and labs were ordered in the WR. At 1343, Troponin came back at 5.24, and patient was still having CP. Patients were shuffled, and 53mins after getting into an ED bed, patient went to the cath lab.
- Patient with chest pain, registered at 0321 – no care spaces to see the patient or even to do a screening ECG. An ECG was done at 0600 showing dynamic changes. Troponin came back at 2.18, and patient went to cath lab at 0730. At the time there were 32 EIPs in the ED
- 45yo with a cerebellar mass with significant brainstem compression and hypertension. He was ultimately admitted to neurosurgery, but due to overwhelming systemic overcrowding his emergent neurosurgery was cancelled requiring the placement of a temporary extraventricular drain. Secondary to the placement of the temporizing drain, he developed ventriculitis, and ultimately died the next week of his ventricular infection from a drain that would not have been necessary if he had been able to have his surgery in a timely fashion.
- 30+ EIPs and >40 patients in the WR. Patient post Whipple surgery for pancreatic cancer vomiting in WR > 7hrs before getting a bed for IV fluids, assessment, treatment and admission.
- 57yo diabetic on peritoneal dialysis presenting with severe abdominal pain and fever in WR 7 hrs prior to getting to a care space for assessment, treatment and admission.
- 85yo male with an acetabular hip fracture presented at 1306, to CHEMS HALLWAY at 1550, in ED bed at 2116 for analgesia and admission.

- 17yo diabetic patient with ongoing diarrhea and nausea and vomiting in WR, registered at 1410, no ED care bed until 2100 (7hrs) for fluids, assessment and treatment.
- 66yo male sent from outpatient CT with brain mets and significant midline shift, registered at 1131, no bed until 1717.
- Worked 06-1400 shift: saw first 5 patients in the WR, and then only 3 beds opened up at 1115, 1123, and 1131, to see patients in proper care spaces. Sub-standard waiting room medicine was the only option available to see patients in the overcrowded ED.
- Entire C-pod full of EIPs from 0900-1645 – first new patient moved from WR to a c-pod bed after 7hours and 45 minutes in the WR. High numbers of patients waiting > 7 hours for any form of treatment.
- Patient with CP, entire 8 hour Chest Pain Protocol completed in the WR – never got to a patient care area.
- Patient with significant CP brought in by EMS at 1421, required numerous nitroglycerin to settle CP while in triage, moved to an ED bed at 1700.
- 83yo male with significant hypotension (SBP <80) of unknown cause, given >2L's while waiting with EMS, registered at 1451, took > 4hrs to get a bed for assessment and treatment.
- Numerous sick patients with prolonged waits in the WR. At 1700 when I finished my TLP shift examples of ongoing prolonged waits for a bed:
    - 36yo with ? CVA registered at 1044 – still awaiting assessment and treatment at 1700
    - 82yo with new ataxia registered at 1153 – still waiting a bed at 1700
- Non-safe non-functional department with no flow. A patient with a positive troponin and an NSTEMI in WR with no bed to place patient. Waits of >10 hours for most patients, while ERPs only seeing 1-2 patients in proper C-pod beds the entire day (only physician seeing patients was TLP in the WR).
- Septic HIV patient with a purpuric rash in the WR > 4hrs before a bed available for assessment, antibiotics, treatment and care. (Not even close to the standard of care for the nation of IV fluids and antibiotics administered in less than one hour.)
- 75yo male with CP and SOB. Registered at 1106, ECG completed at 1305, patient LWBS at 1700 with no assessment or care. No way to track if patient had significant pathology or not.
- 25 EIPs in ED with absolutely NO flow. Virtually ALL B/C Pod beds occupied by EIPs or with patients with prolonged work-ups. During this time had to treat a young patient with pyelonephritis in the WR from 1500-0100 – entire treatment was completed in the WR.
- Patient sent from Psychiatry Walk-in Clinic with first psychotic episode for admission. Registered at 1426, still no beds at 2400 for patient who was still in WR with new onset psychosis. Meanwhile a stable EIP suitable for short psychiatry stay at the RAH cannot be transferred as they will not accept new patient transfers after 2100 – despite bed available at their site.
- 25-30 EIPs all day, 5 triage 2 CP patients in WR at 1555 with no beds for assessment or treatment
- Delirious patient in restraints with EMS in WR > 2hrs before bed available for treatment and medical work-up.
- Today was a total disaster, started with 33 EIPs at 0900, still 26 EIPs at 1700 – while there were 49 undifferentiated patients in the WR at 1700. C-pod doctor only saw one patient in C-pod the

entire shift due to overwhelming EIPs. Meanwhile numerous services continued to accept patients direct to the non-functional ED and out of region hospitals continued to call to attempt to transfer patients from out of region. Examples of undifferentiated patients in the WR:
    - 76yo Male passing bright red blood per rectum (> 20 times in WR), waiting > 5hrs at 1700 with no bed imminent
    - 75yo female with severe abdominal pain, already >4.5hrs wait for bed, no bed imminent
    - 80yo with known brain tumor and N/V still waiting >6hrs for a bed and treatment.
- 29yo with a dislocated shoulder, had to do sedation in our fast track area (F-Pod) as this was the only place to treat the patient and reduce his dislocation.
- Riot at the Edmonton Max, had absolutely no reserve in the ED and we were receiving a number of unknown injuries from the riot, requested to activate the disaster plan and CH executive on call refused. No pro-active response, all response at UAH is reactive.
- 26-30 EIPs all day. Elderly dehydrated patient with palliative cancer arrived at 1053, still in CHEMS HALLWAY bed at 1700 with no hope for proper bed anytime soon. At one time there were 9 EMS crews in our WR, one of them waiting greater than 6 hrs. Department completely non-functional and dangerous.
- 82yo hypotensive patient with a potassium of 6.0, reg at 1446, still with EMS in WR at 1700 awaiting a bed, assessment and treatment.
- 25 EIPS and >25 patients in the WR all day. Waits > 6 hours for most. Despite this congestion, had > 12 referrals accepted direct by other services. At 1800 these were some of the patients who had registered before 1300 and still had not received any assessment, treatment or care (All waiting >5yrs when I left):
    - 54yo M with depression and suicidal
    - 20yo M with severe abdominal pain
    - 59yo M with new onset vertigo
    - 46yo M with SOB
    - 48yo F with diarrhea
    - 57yo M with Facial pain
    - 73yo F with SOB and CP
    - At same time multiple stroke type patients were seen by TLP and neurology in WR, with admission or discharge from WR.
- This was a horrible shift, >20-30 patients in WR for > 7 hour waits. Triage morale very low. Although no specific sub-optimal outcomes were identified I felt out of control.
- > 20 EIPs at all time with next to no movement in ED.
    - Major trauma patient with known T9 fracture still in WR at 1700 with >4 hr wait, no analgesia, assessment or treatment.
    - NSTEMI in WR >4hrs, troponin 3.5 when blood work finally came back.
- No C-pod beds empty from 0800-1400. Multiple patients with significant CP in WR with no beds for assessment or treatment.
    - 90yo with ischemic sounding CP, SOB and diaphoresis in WR from 0800-1300 due to lack of beds.

- Pt presenting with severe Renal Colic, registered at 1230, still no bed, analgesic or treatment at 1730. (> 5 hours with 10/10 pain.)
- Patient with liver failure and sepsis presenting as confusion, experienced significant delay to timely treatment due to waiting in CHEMS HALLWAY bed.
- Patient arrived at 1621 with severe RLQ pain, diagnosed with perforated appendicitis on ultrasound at 2200. Patient went to ultrasound from the WR, and thus received no analgesics or care for > 5hrs with an acute abdomen.
- Patient with a small bowel obstruction and vomiting registered at 1617, seen in WR at 0519 (>13hrs later), still no beds, general surgery seeing in WR and to admit from there.
- 66yo female with known diverticular disease, brought by EMS at 1935, still no bed at 0600. (>10hrs) Ongoing 7/10 abdominal pain all night with NO analgesia, assessment or treatment.
- 56yo male with abdominal pain and mass, registered at 1847 and still no bed at 0615 the next day. > 11hrs with no analgesia, assessment or treatment.
- 91yo female tripped on a curb and fell onto her face. Presented at 2237 with facial laceration, concussion and confusion. Seen in WR at 0615 where patient was physically exhausted from sitting in a WR chair for > 7 hrs overnight without sleep. Patient ultimately required admission solely for the physical exhaustion her overnight wait in the WR caused. If seen promptly upon arrival the patient likely could have been discharged home with her 70yo son, but after grueling wait in the WR both were too exhausted for this to be an option.
- Patient with metastatic cancer vomiting blood presented at 2300 with exhausted care givers. Still no bed at 0700. Found to have a sodium of 116 when the patient was finally placed in a CHEMS HALLWAY bed as the only place for assessment.
- 61yo male with significant cardiac disease presented with CP and had to wait > 6hrs for a bed for assessment and treatment
- Numerous patients with CP in WR > 5hrs, with no bed for assessment or treatment. Examples:
    - Previous MI's and angioplasty with CP
    - CP with new onset atrial fibrillation
- Horrendous care due to overcrowding, some examples:
    - a 28yo male with end stage multiple sclerosis presenting with urosepsis at 1215, still in CHEMS HALLWAY at 2150 (> 9.5 hrs) awaiting a bed for proper treatment and assessment, let alone privacy and compassionate care.
    - 69yo Female with a CVA and weakness, registered at 1344, still in CHEMS HALLWAY at 2305 (>9hrs).
- I ran a CP clinic from the WR, there was no way we could even come close to providing standard of care for patients presenting to the ED due to overcrowding.
    - 63yo M with significant sounding CP reg at 1320, no bed for assessment and treatment until 1724
    - Patient with angioplasty and stent 3 months ago presenting with CP similar to previous, registered at 1449, no bed until 1848.
- 88yo Female with hypoxic pulmonary embolism. SaO2 86% on room air. Registered at 1859, no bed available for assessment and treatment until 2032.

- 25 in WR, patient with CP registered at 1557, unable to do ECG until 1625 due to absolutely no physical empty beds in ED.
- NSTEMI Patient with CP and positive Trop of 3.8, registered at 1517, no bed available for assessment or treatment until 2230.
- Patient with potassium of 6.6 and peaked T waves on ECG requiring emergent treatment, registered at 1942, no bed until 2100.
- 63yo male presented with no bowel movement for 3 weeks, registered at 1417, seen by TLP at 1631 and found to need manual disempaction. Left from WR without treatment due to prolonged wait. Unable to contact patient to have them return, uncertain if any adverse event followed.
- Patient with new CVA outside of thrombolysis window, arrived at 1347, no bed until 2112 for assessment or treatment.
- Multiple patients in WR with new Strokes with no bed for care or treatment
    - CVA in WR, arrived 1058, still in WR at 1630
    - CVA in WR arrived at 1111, still in WR at 1630
- Patient with exertional CP and a hemoglobin of 70 requiring transfusion, bypassed Red Deer as closest facility despite UAH grossly overcrowded – RED DEER refused to accommodate the patient despite our voicing our compromised position.
- Patient from an MVC on spine board in WR > 5hrs prior to assessment and treatment.
- Patient with SOB and sodium of 123, waited > 6hrs in WR and then left without being seen.
- Arrived at 0000 to >22 EIPs, multiple patients being held overnight by services for work-up, and >20 patients in the WR. The department was completely non-functional and unsafe for patients. Only the sickest bothered to stay in the WR with >10% of presenting patients leaving without being seen by a physician. Some patients with prolonged waits:
    - 91yo confused and tachycardic, registered at 1713, still in CHEMS HALLWAY at 0115. LP done in HALLWAY, and pt admitted from hallway.
    - 21yo F with query appendicitis, registered at 1853 still no bed at 0610 (>11hrs) with no analgesic, assessment or treatment.
    - 81yo F with previous CAD, presenting with CP at 2210, Triage Level 2, no bed for assessment and treatment until 0130. (National guidelines for Triage Level 2 are to be seen by a physician within 15 minutes.)
    - 91yo M with weakness, new facial droop and query CVA. Registered at 1957, no bed until 0550 (almost 10 hrs over night for a 91yo)
    - 54yo M with HEP C cirrhosis and severe abdominal pain, all LFT's significantly elevated, reg at 2022, still no bed for analgesia or assessment at 0630 (> 10 hrs)
    - 38yo M recently from Africa, sent in with a positive smear for Malaria and rigors, reg at 2116, still no bed at 0610.
- 58yo male with known diverticular disease, reg at 1747 with peritoneal signs. Still in WR at 2300 despite clear perforation on AXR. (>5hrs) with an acute abdomen in WR with no analgesia or treatment.
- 74yo with new onset CVA, registered at 1900, still in CHEMS HALLWAY at 0000 with no assessment or treatment.

- 71yo F with syncope, registered at 1532, still in CHEMS HALLWAY at 0015 without assessment or treatment.
- > 20 EIPs with multiple patients awaiting disposition and work-up in ED.
    - 19yo M presented at 0330 with hip pain and intoxication. Not seen until ~1000 in WR by TLP due to severe overcrowding and no beds to assess patient in ED. Xrays showed a hip dislocation requiring reduction at 1100. (> 7hrs) with dislocated hip in WR, significant risk for avascular necrosis and terrible outcome for this 19yo patient.
- Dialysis patient with new liver failure and altered LOC, no bed for assessment and treatment > 1 hr. Meanwhile numerous patients with CP waiting > 4hrs for assessment and treatment.
- Unsafe department. > 25 EIPS with multiple others awaiting disposition and admission. MET Team Call for a patient with an allergic reaction. This patient had to come to our WR as there were NO ED beds to assess and treat the patient.
- 49yo male with epigastric pain and significant hypotension (SBP <70) in WR for 1hr 45 mins awaiting a care area, assessment and treatment.
- NSTEMI in WR > 1 hr with no bed to move patient to.
- Patient with acute renal failure transferred from periphery on a bicarbonate drip for hyperkalemia, arrived 1230, in WR on bicarb drip until 1445.
- 31EIPs, absolutely no movement in ED. Two patients coming from SPOT direct to Ortho, and orthopedics insistent that patients must be seen in ED before going to available beds on surgical floor. These were admitted patients coming from other hospitals in the region. Ortho unwilling to take direct to the floor.
- Patient with a lower GI bleed, hemoglobin of 60, in WR > 8 hrs until bed available.
- Patient with abdominal pain and pulsatile mass, query AAA, in WR >8hrs without a ED care bed for assessment or treatment.
- Two patients, one with syncope and another with hematuria, brought in by EMS despite dialogue with regional deployment and EMS superintendent that we could not handle any further patients
- Patient with severe hemophilia and new 10/10 painful hemarthrosis given Factor by TLP in WR. Prolonged wait with severe pain due to overcrowding and no ED beds available.
- 97yo with pneumonia in the WR >6hrs, no bed for assessment, treatment, or even to lie down.
- Patient with a previous renal transplant presented with fever/chills and tachycardia at 140. Reg at 0058 and didn't get into a bed for assessment and treatment until 0750 (>7hrs). Found to have Creatinine of 1016, Hbg of 61, and plts of 14. Patient ultimately diagnosed with Sepsis and DIC with 7 hr wait overnight in WR, untenable delay to timely care.
- Numerous EIPs in ED > 4 days when I started my shift.
- 94yo female with severe dehydration secondary to C. diff colitis, registered at 0930, still not in a bed at 1400. > 4hrs without analgesia, fluids, assessment or treatment.
- 48yo female with hypokalemia and weakness, reg at 0930, no bed still at 1540.
- Completely non-functional department. >30EIPs, with three of them being intubated ICU patients. Despite unsafe department multiple services continuing to accept patients direct:

    - SAH in Dawson Creek BC accepted by neurosurgery despite no ICU beds in region. Took > 30 minutess of prolonged discussion to divert patient to Vancouver. Consultants WITHIN UAH completely unaware of how unsafe and overcrowded the ED was.
    - Female with query appendicitis accepted at 2200 by General surgery from Edson without informing anyone in ED, and despite the fact that the patient was completely stable and likely needed an ultrasound that couldn't be obtained until the next morning
- Patient with severe back pain reg at 1322, moved to bed at 1900 for analgesia and assessment.
- Patient with a DVT and severe leg pain, > 6hrs to get a bed for analgesia, assessment and treatment. When finally in a bed the patient was crying and screaming at all health care providers in frustration of prolonged wait in pain without care.
- Multiple CP patients with prolonged waits for ECG and bed:
    - 63yo with CP reg at 1410, no bed until 1843
    - 69yo with CP reg at 1701, no bed to even do an ecg until 2000
- 38yo patient with DKA – Na 118, K=5.7, ++ dehydrated. No acute monitored bed to treat patient for prolonged period.
- Young female 20 weeks pregnant with contractions and abdominal pain. Was going to leave without being seen due to prolonged wait. Manual pelvic exam done in triage assessment area (not considered a private area) at patients request to check cervix and risk of premature delivery
- Known free air under diaphragm and perforation from family docs office, presented at 1615, no bed for analagesia, assessment and treatment until 1800.
- Patient with RLQ pain registered at 1927, diagnosed with an acute appendicitis in the WR at 2230, straight to the OR from the WR. NEVER got into a proper care area for analgesia or treatment.
- 23yo female with upper GI bleed and hematemasis, arrived with EMS at 2207, still no bed at midnight.
- 38yo M with new onset tachycardia arrived at 2245 with heart rate of 150. Still no care space for assessment or treatment at 0015.
- 26 EIPs, 8 definite to be admitted and > 25 in WR at midnight.
    - 22yo male with new onset seizure registered at 1733, admitted by neurology in the WR, still no bed at 0030.
    - Patient with a liver transplant, presented with hypertension and headache at 1818, still no bed at 0030.
- Midnight shift, 30 EIPs, 5 definitive admissions pending, and greater than 10 "hold overnights". Some examples of prolonged delays in decision making due to consultation or radiology:
    - Reg at 2139, requiring non-emergent ultrasound which is unattainable at night, still awaiting ultrasound at 0930.
    - Reg at 2226, requiring non-emergent ultrasound which is unattainable at night, still awaiting ultrasound at 0930.
    - Reg at 2322, requiring non-emergent ultrasound which is unattainable at night, still awaiting ultrasound at 0930.
    - Patient registered at 2138 with signs and symptoms of possible cauda equina, informed MRI not available at night, hold until AM for MRI.

    - Patient with abdominal pain and GI consulted at 2200, GI staff had still not seen to make a disposition decision at 0930 the next day.
- Patient with a Hip fracture registered at 1138, no analgesia or treatment until in a bed at 1751.
- Patient with urinary retention registered at 1229, still not in bed at 1730.
- Patient with acute appendicitis – registered at 1541, work-up all done in WR. CT at 2100 from WR. Still no bed for analgesia or treatment when admitted in WR at 2200.
- Elderly patient with a pneumonia, WBC of 28.9, Troponin of 0.21, and Glucose of 1.9 registered at 1704, not in ED care bed until 2200. Hypoglycemia was missed and not treated by the triage doctor and nurses as there were >40 other patients in the WR and the environment was completely out of control and unsafe.
- Patient with an acute appendicitis registered at 1534 and went to OR from WR. General surgery staff was upset because the patient had no orders or antibiotics prior to getting to the OR, but the patient was never in an ED care area at any point – the patient's care was as optimal as possible due to the overwhelming overcrowding.
- No beds in ED, and multiple consultants still accepting patients from out of region despite protests by ED staff:
    - Stable patient sent for CT to rule out PE, never made it to a care space.
    - PT transferred from Ft McMurray for plasma exchange despite no beds in hospital/ED.
- Patient presented tachy at 136 and SBP of 69. Reg at 1656, no acute care beds for assessment and treatment until 1732. Found to have a leaking AAA.
- 28yo with depression and suicidal, victim of spousal abuse, waited > 5hrs and then attempted to leave without being seen, persuaded by TLP to await formal assessment.
- Patient with hypokalemia of 2.8 waited >2hrs for a bed for assessment and treatment
- 2 patients with Febrile Neutropenia (+++ High risk for infections, requiring isolation) in WR for prolonged waits.
- Patient from Fort McMurray with cardiac contusion accepted direct to Cardiology, in ED > 48hrs with no admission or service taking responsibility for the patient's care. Never actually admitted to any service, so never counted as an EIP, or a blocked bed. Multiple hand-overs to numerous emergency physicians with no reasonable continuity of care for entire stay.
- Two different patients with small bowel obstructions who were in ED > 48hrs without admission orders by general surgery. (Both patients were clear SBO's, requiring NG tubes and IV fluids.)
- Due to severe overcrowding two intentional overdoses left the WR without being seen. That night there were > 10% of registered patients who left without being seen (LWBS). Meanwhile multiple services continued to accept direct without notifying anyone in the ED – ENT and Neurosurgery were examples.
- 36yo male with Malignant hypertension (220/150), registered at 1230, asked to leave without being seeing numerous times, ultimately found to have a troponin of 0.41 and a creatinine of 199. No bed available until 1510 for treatment of his hypertensive emergency. Patient would have left without treatment if the TLP hadn't persuaded him to stay – this patient had clear evidence of end organ failure and without treatment would have been at significant risk of imminent myocardial infarction, stroke, or renal failure as examples.
- Only 15 EIPs – we actually had flow and the department almost worked like a real ED.

- BAD – 22 EIPs, 10 awaiting to be admitted, absolutely no flow, > 40 patients in WR
    - Patient with dehydration and a sodium of 120, reg at 2105, no bed until 0230.
- 32 EIPS, only 1 available patient care space. Absolutely no movement. Executive on call contacted who was unable to provide any relief.
    - Patient in Hinton with an aortic dissection – NO beds in entire region to accept the patient.
    - Patient with K of 6.5 in WR for prolonged time with NO bed for assessment/treatment.
- 25 EIPs with 5 more definite to be admitted, numerous with prolonged workups and no movement pending. Discussed with multiple executives on call with no impact. The operating rooms went on with full slate of scheduled surgeries despite no discharges pending and the ED being completely non-functional due to overcrowding.
    - Meanwhile a patient was in CHEMS HALLWAY with absolutely no privacy, urinating in full public view.
- Patient with an acute cholecystitis transferred from Drayton Valley, arrived at 1043, no bed until 1600. >5hs in ED WR with 10/10 severe RUQ pain with no analgesia, assessment or treatment.