Ambulance Destination Determination Pilot

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Context

- Edmonton Capital Region population over one million
- Eleven regional ambulance service providers
- Ten hospital emergency departments – six primary sites (five in the city of Edmonton, one adjacent)
- Approx 140 ambulance transports daily (COE 85%)
- Ambulance patients approx 15% of E.D. volume
- Coordination of patients through Critical and Urgent Care lines
The Issues

- Increased emergency department traffic
- Increased ambulance transports & off-load delays
- Regional diversion system creating surges in ambulance traffic
- Regional stratification guidelines complex
- Ambulance providers “negotiating” with E.D.s and operating in an information vacuum.
The Idea

- Coordinate all ambulances transporting patients to E.D.s based on system wide information
- Provide ambulance crew with most appropriate destination
- Balance ambulance patients (transports) across the region
- Reduce/eliminate the need to negotiate a destination
- Improve adherence to stratification guidelines
- Provide one central contact point for all ambulance providers and E.D.s
The Coordination Centre

- Housed in Capital Health Regional Patient Transport Office
- Jointly staffed by CH and Edmonton EMS
- 24x7 coverage utilizing Paramedic and EMT
- Medical oversight from RPTO & EMS medical directors
- Started with five regional ambulance providers – now coordinates for all eleven
Available Information

- Emergency Status Screen for E.D. status
- Edmonton EMS ambulance location and event status
- Incoming Critical and Urgent Care patients
- Fixed wing and STARS activity
- Inter Hospital Patient Transfers
- Ambulance service provider information
- Regional bed management calls
The Process

- Crews identify the need to transport patient
- Contact ADCC and provide patient details
- ADCC staff review system information and determine appropriate E.D.
- Crews transport patient
- ADCC staff provide E.D. with pre-arrival information.
- ADCC become the “broker” not the individual ambulance crews
- Regional Diversion process eliminated
### Joint Capital Health
City of Edmonton Emergency Medical Services Initiatives

#### EMERGENCY STATUS SCREEN

**Tuesday 02 October 2007 16:05**

<table>
<thead>
<tr>
<th>Hospital</th>
<th>Alert Status</th>
<th>EMS Provider</th>
<th>Arrival Time</th>
<th>Duration (hrs)</th>
<th>CTAS</th>
</tr>
</thead>
<tbody>
<tr>
<td>University of Alberta &amp; Stollery</td>
<td>2</td>
<td>OTHER</td>
<td>14:38</td>
<td>1 hr 29 min</td>
<td>3</td>
</tr>
<tr>
<td>Royal Alexandra</td>
<td>2</td>
<td>EDMONTON</td>
<td>14:12</td>
<td>1 hr 63 min</td>
<td>3</td>
</tr>
<tr>
<td>Grey Nuns</td>
<td>2</td>
<td>EDMONTON</td>
<td>15:03</td>
<td>14 min</td>
<td>4</td>
</tr>
<tr>
<td>Misericorda</td>
<td>2</td>
<td>EDMONTON</td>
<td>15:51</td>
<td>14 min</td>
<td>4</td>
</tr>
<tr>
<td>Sturgeon</td>
<td>2</td>
<td>EDMONTON</td>
<td>15:51</td>
<td>14 min</td>
<td>4</td>
</tr>
</tbody>
</table>

#### Available Resus & CC Spaces
- University of Alberta & Stollery: 2 out of 5
- Royal Alexandra: 2 out of 2
- Grey Nuns: 1 out of 2
- Misericorda: 2 out of 2
- Sturgeon: 1 out of 2

#### Available Stretchers
- University of Alberta & Stollery: 1 out of 12
- Royal Alexandra: 9 out of 48
- Grey Nuns: 1 out of 25
- Misericorda: 1 out of 26
- Sturgeon: 3 out of 26

#### CTAS
- University of Alberta & Stollery: 33
- Royal Alexandra: 43
- Grey Nuns: 22
- Misericorda: 24
- Sturgeon: 12

#### EIPS
- University of Alberta & Stollery: 15
- Royal Alexandra: 16
- Grey Nuns: 7
- Misericorda: 14
- Sturgeon: 4

#### WR
- University of Alberta & Stollery: 29
- Royal Alexandra: 24
- Grey Nuns: 1
- Misericorda: 11
- Sturgeon: 6

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[Welcome to the Emergency Status Screen](#)
Success?

Positive Benefits

- Improved transparency and information sharing between stakeholders
- High satisfaction of other ambulance service providers
- Reduced frequency of ambulance “surges”
- Perception that patient distribution is more equitable
- Improved relationships between Crew → ADCC → E.D.
- Low level of issues/concerns raised
Or Failure?

However

- Off-Load delays have not yet reduced
  - Increased ambulance transports and overall E.D. volume
- Temporary bed closures
- Downstream issues require longer lead time to resolve
- Stratification Guidelines need revision
- Some E.D.s seeing patients outside of “normal” expectations
Pilot to Operations

- Senior Executives support to move to an operational entity
- Transitional plan in development
  - Working environment & conditions
  - Technology and information requirements
  - Human resource requirements
  - Operating policies and procedures
  - Funding requirements
Next Steps

ADCC
- Complete operation plan and funding requirements
- Transition to operations

Other
- Review Stratification Guidelines
- CTAS training for all regional ambulance services