Patient Transport The Good, Bad and Ugly

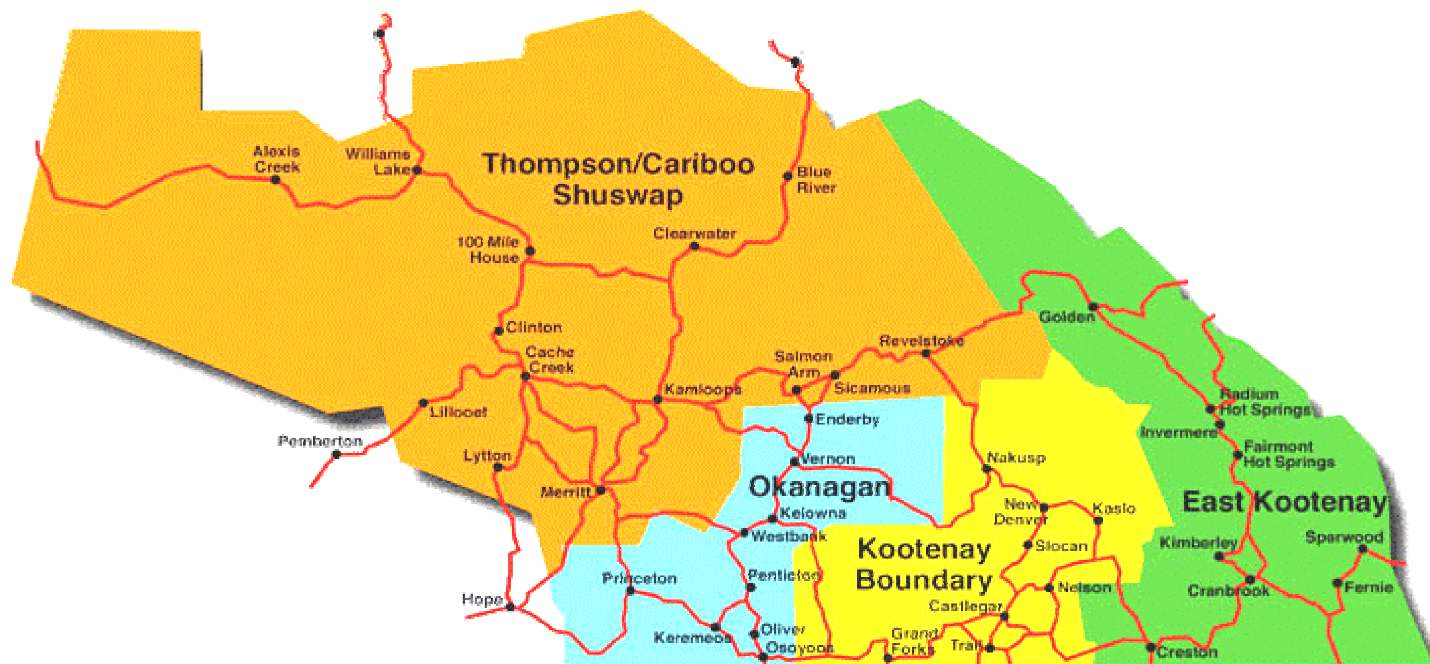
The Rural Emergency Continuum of Care Conference

Kelowna, BC

June 2010

Patient Transportation Services (Brent Hobbs)

About Interior Health



- Pop. 740,000
- Urban & Rural Health Care Delivery
- Mountainous Terrain & Huge Geography
- Centralized Acute Care Delivery Model

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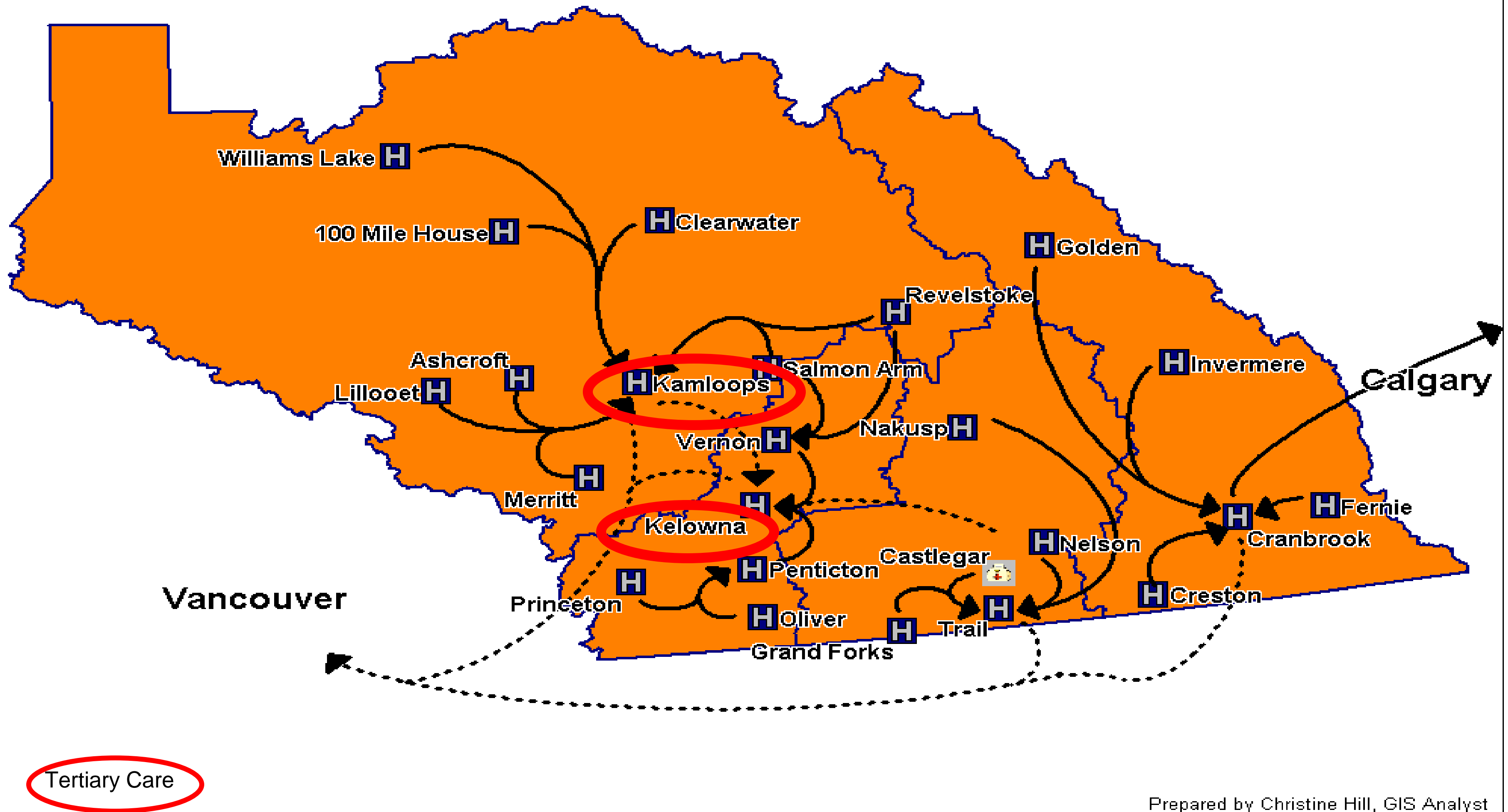
Referral Patterns



Transport Challenges

- **Limited fixed wing**
  - 1 aircraft after midnight
  - Mountains, Weather, Limited daylight (winter)
- **No dedicated rotary**
  - Ad hoc contracts (exception of STARS in EK)
- **Basic life support in rural / remote**
  - Skill set does not meet high acuity patient needs
  - Bridge gap with scarce rural resources (RN, MD escorts)
- **Fragmented referral processes**
  - Multiple silos
  - BC Bedline, ground / air ambulance, MDs, bed control

The Ugly

Pediatric Head Injury in Rural IH

- **ED arrival to transfer request—delayed by 30 min.**
- **Transfer refused by RIH/KGH ("capacity")**
- **3 hours/10 phone calls to find accepting MD (VGH)**
- **Transport initiated <u>after</u> bed secured**
- **Pt. expires prior to transport team arrival**
- **Dx Epidural Hematoma**

Time from ED Arrival to Death = <u>3hrs 30 min.</u>

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Clinician Feedback

- Single point of entry (one call)
- Seamless interagency communication
- No refusal for life and limb threatened organ
- Autolaunch before a bed is found
- Dedicated resources
  - Rotary, Fixed Wing, Ground
  - Expert clinicians
- Accountability
  - Audit & Continuous Quality Improvement

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FOUR PILLARS

PHYSICIAN

TRANSPORT SYSTEM

COORDINATION

ADMINISTRATION

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The Good

Combative Head Injury (skier into tree)

• Accident time	1130
• BLS on scene	1140
• Autolaunch rotary CCT	1140
• ED arrival (ground BLS)	1235
• ED arrival (rotary CCT)	1240
• Arrival tertiary ICU	1433

Total Time (accident to definitive care) = 2 hrs. 30 min.

Dx Subdural Hematoma

Interior Health

Vision

High Acuity Response Teams

1. **Provide a rapid response to higher level of care**
   - Linkages with fixed wing, rotary wing, ground ambulance
   - Improve patient outcomes by minimizing delays

2. **Reduce impact on scarce human resources**
   - Scope: greater than basic life support transfers
   - Dedicated clinicians reduce need for rural escorts

3. **Address low volume of high acuity transfers**
   - Small cadre will achieve critical mass to maintain skills
   - Maintain clinical competence by performing patient care in the base hospital when not performing transfers

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Vision

High Acuity Response Teams

4. **Economically sustainable with low call volume**
   - 1-2 transfers a day per catchment area
   - Must support patient care activities in the base hospital when not performing transfers

5. **Reach out to support catchment area**
   - Teams based in regional referral centres
   - Follow patient through continuum of care
     - Consistency in patient care (rural ED through to tertiary ICU)
   - Opportunity to assess, treat and support patient care at rural site where appropriate (e.g. through telehealth)

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