Striving for Quality, Timely and Safe Patient Care: An Audit of Air Ambulance Services in BC

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Comments

BC Emergency Health Services (BCEHS) is pleased to provide the Office of the Auditor General with this progress report on the Air Ambulance services audit released on March 21, 2013. BCEHS has made considerable progress toward implementing all of the Auditor General’s recommendations. The summary below will provide a general overview of our progress to date as well as our plans to further strengthen the air ambulance service with a focus on patient care quality, safety, operational excellence and fiscal responsibility.
Outstanding Recommendations

### RECOMMENDATIONS AND SUMMARY OF PROGRESS

<table>
<thead>
<tr>
<th>RECOMMENDATION 1: Actively manage the performance of its air ambulance services to achieve desired service standards for the quality, timeliness and safety of patient care. It should:</th>
<th>Partially implemented</th>
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<tr>
<td>• Clearly define its goals and objectives for air ambulance services;</td>
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<td>• Measure and monitor the timeliness of air ambulance transports and quality of care provided to patients;</td>
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<td>• Build on current safety processes to develop a complete safety management program;</td>
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<td>• Communicate performance results to BC Ambulance Service staff and air carrier contractors who are responsible for meeting the standards, and ensure performance expectations are understood; and</td>
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<td>• Communicate results with stakeholders.</td>
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### Actions taken, results and/or actions planned

- A formal, multi-stakeholder Critical Care Quality Committee has been created to review patient safety and quality issues, establish policy and service standards and provide oversight of paramedic practice.

- Critical Care Programs has created a management role responsible for quality, patient safety and service improvement in September 2013. This position is responsible for overseeing the development of the Critical Care quality framework, quality measures, establish service standards, leading patient safety reviews, analyzing service allocation and utilization and leading improvements to patient care and service responsiveness.

- BCEHS is developing a proactive and thorough performance management framework for the Critical Care program and air ambulance services. Our focus will be on designing both lead and lag measures for clinical (patient) and operations. This includes industry best practice and metrics to determine the timeliness, efficiency and effectiveness of air ambulance services. BCEHS has adopted a series of clinical (patient) care measures that can be compared with other air ambulance providers in the US and Canada. This is an area of ongoing improvement as we define appropriate measures and ensure existing data systems can provide accurate and timely information.

- Critical Care Programs has developed a draft strategic plan for 2014-17 that articulates four strategic objectives and core actions related to providing timely, quality, safe and sustainable air and ground ambulance services. This plan is integrated with the current plans of the BC Ambulance Service and BCEHS. There will be a wide consultation on the strategic plan with anticipated implementation effective April 1, 2014.

- Critical Care Programs, in partnership with the BCEHS Patient Care Quality Office (PCQO), BC Patient Transfer Network (BCPTN) and Patient Transport Coordinatation Centre (PTCC), is actively leading a number of specific quality reviews related to possible patient care impacts of system, decision making or operational issues. This includes recommendations for improving the call management, dispatch and paramedic care provided to patients.

- A comprehensive ongoing air carrier audit program was established by the BC Ambulance Aviation Services in the summer of 2013 to review the operational, safety and maintenance performance of all BCAS air ambulance air carriers. Dedicated carriers will be audited in fiscal 2012-13 and itinerant carriers will be audited starting in fiscal 2014-15. Audit findings and recommendations are implemented immediately by the air carriers and reported to all levels of the organization.

All information has been provided by the organization and has not been audited.
### Recommendation 2:
Periodically review whether the distribution of staff and aircraft across the province is optimal for responding to demand for air ambulance services.

**Partially implemented**

**Actions taken, results and/or actions planned**

- Work continues to develop a stronger understanding of both existing and future air ambulance demand including patient volume and acuity by Health Authority. We are proactively engaging with the Health Authorities to ensure coordination of service planning to meet patient and community needs. This information will be used to help inform the next round of air ambulance contracts including location, deployment and crew complement.

- A data analysis template, utilizing Geographic Information Systems (GIS) mapping technology, has been developed for Critical Care Programs to assess the utilization of air ambulances with the goal of developing appropriate mission profiles and service standards for the air ambulance fleet and improve resource allocation and deployment decisions.

- Initial discussions have occurred with potential academic partners to undertake a “blank slate” review of the air ambulance system. A prerequisite to this work is ensuring that the decision making and resource deployment systems used by the BCPTN and PTCC are robust and reliable.

- Work is underway with the Health Authorities to evaluate the utilization of air ambulance resources for both trauma responses and high-acute inter-facility patient transfers, understand the impact of health system resource and referral pattern changes on the air ambulance system and engage in planning for future growth.

### Recommendation 3:
Regularly identify and review a sample of air ambulance dispatch decisions to ensure resources are allocated with due consideration for patient needs and available resources.

**Partially implemented**

**Actions taken, results and/or actions planned**

- Critical Care Programs, BCPTN and the PTCC are undertaking a review of air ambulance deployment including improvement to decision making tools and implementation of LEAN design techniques to reduce air ambulance dispatch times.

- Critical Care Programs, BCPTN and PTCC regularly review selected air ambulance dispatches from a continuous quality improvement perspective in order to make ongoing adjustments to the call processing, patient triaging, communication and information sharing processes as well as policy and procedural changes.

- BCEHS staff and paramedics are encouraged to report any concerns related patient care and safety to the PCQO utilizing the online Patient Safety & Learning System (PSLS). Several quality reviews have been conducted in the past year on air ambulance calls where staff or stakeholders believed that patient care may have been compromised. The outcomes of these reviews include recommendations and actions for system improvement, policy change, training, paramedic practice and regulatory changes.

- An ad hoc operational quality review process has been established with the BCPTN, PTCC and Critical Care Transport to review selected air ambulance dispatches where cross-functional and multi-jurisdictional system, process, decision making or communication issues have resulted in a delay or resource allocation issues.

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**Outstanding Recommendations (Continued)**

All information has been provided by the organization and has not been audited.