

## Chapter 3

### Ministry of Health and Long-Term Care

## Section 3.01

# Ambulance Services—Air

### Background

The provision of ambulance services in Ontario is governed by the *Ambulance Act*. Under the Act, the Minister of Health and Long-Term Care must ensure “the existence throughout Ontario of a balanced and integrated system of ambulance services and communication services used in dispatching ambulances.”

The air ambulance program was established in 1977 to serve remote areas primarily in northern Ontario that are inaccessible to land ambulances or that land ambulances would take too long to reach. Air ambulances are also used to transport medical teams and organs for transplant.

The Ministry contracts with private operators to provide aircraft, pilots, paramedics, and bases to house the aircraft when not in use.

The Ministry operates an air ambulance dispatch centre located in Toronto. An air ambulance base hospital, also located in Toronto, provides medical direction, oversight, and certification of air ambulance paramedics. Ministry expenditures for the air ambulance program totalled approximately \$93 million in the 2004/05 fiscal year.

### Audit Objective and Scope

The objective of our audit was to assess whether the Ministry had procedures in place to ensure that its expectations for the delivery of air ambulance services, including compliance with applicable legislation and policies, were being met in a cost-effective manner.

Our audit was conducted in accordance with the standards for assurance engagements, encompassing value for money and compliance, established by the Canadian Institute of Chartered Accountants, and accordingly included such tests and other procedures as we considered necessary in the circumstances. The criteria used to conclude on our audit objective were discussed with and agreed to by senior ministry management. We reviewed and, where warranted, relied on and referred to work completed by the Ministry’s Internal Audit Services.

### Summary

The Ministry needs to take action to ensure that its expectations for the delivery of air ambulance services, including patient care, are being met. In particular, the Ministry needs to address the following:

- Although the Ministry had implemented the recommendation from our 2000 audit of Emergency Health Services regarding establishing dispatch reaction-time (that is, response-time) standards, we found that the Ministry was not monitoring dispatch reaction times against the standards and only monitored certain air-ambulance-operator reaction times. For the air-ambulance-operator reaction times that the Ministry did monitor, contractual reaction times were met only between 38% and 67% of the time.
- In about 70% of the service reviews we examined, the Ministry certified air ambulance operators even though either the operator had clearly not met the criteria or it was not certain whether the operator had met the certification criteria. We saw little evidence of follow-up to ensure that identified deficiencies had been corrected.

As well, improvements are required to ensure that air ambulance services are meeting patient needs in a cost-effective manner. In particular, we noted the following:

- The Ministry was not sufficiently monitoring the use of air ambulance resources, especially in those situations where exceptions were made to the Ministry's stated policy of when to use an air ambulance, in that it generally did not document the reasons or rationale for choosing an air ambulance over a land ambulance.
- The percentage of helicopter calls being cancelled after the helicopter has already been dispatched has been increasing, from about 27% in the 2003/04 fiscal year to 33% in 2004/05. However, the Ministry has not formally analyzed the reasons for the high level of cancellations to determine whether changes to the dispatch process were required. Aside from the costs associated with cancelled flights, dispatched helicopters are generally unavailable to respond to another call, and therefore reaction times for subsequent patients may be increased.
- Based on the coroner's recommendation, the base hospital engaged an independent American organization to conduct an accreditation review of Ontario's air ambulance program. One of the key recommendations it made in 2003 was that a clear line of authority be established to better ensure consistent quality in the delivery of air ambulance services. However, this recommendation has not yet been satisfactorily implemented.

## Detailed Audit Observations

### REACTION TIMES

#### Dispatch Centre

Air ambulances are dispatched throughout the province by a central air dispatch centre, which receives calls from doctors, from land ambulance dispatch centres (which pass on the requests they receive from individuals requiring an air ambulance), and, in some remote communities, from “first responders” (for example, firefighters or police officers). At the dispatch centre, the call taker determines the call's priority (emergency, prompt, deferable, or scheduled transfer), and transfers it to a dispatcher.

In our audit of Emergency Health Services in our *2000 Special Report on Accountability and Value for Money*, we recommended that the Ministry develop air ambulance dispatch reaction-time (that is, response-time) standards and monitor actual reaction times against the standard. In November 2000, the Ministry acted on our recommendation and introduced an air ambulance dispatch centre reaction-time standard for all code 4 (emergency) and code 3 (prompt) calls. The standard was five minutes from the time a call is received to when it is transferred to a dispatcher and an additional 10 minutes for the dispatcher to contact an air ambulance operator—a 15-minute total reaction time

from call receipt to dispatch. However, we noted that the Ministry did not formally monitor actual air ambulance dispatch centre reaction times to determine whether they met the standard.

In 2003, ministry documents indicated that the air ambulance dispatch centre should consider adopting reaction times similar to those for land ambulance dispatch centres: a two-minute total reaction time from call receipt to dispatch. While the 15-minute reaction time envisioned in the 2000 standard may seem long, a two-minute reaction time may be too ambitious a target to achieve given the dispatch system technology and additional complexities of dispatching an air ambulance as compared to a land ambulance. In any case, the 15-minute dispatch reaction-time standard has not been revised.

### Air Ambulance Operators

The Ministry contracts with private operators to provide three different categories of helicopter and airplane ambulance service and establishes reaction times for each category in its contracts with operators as follows:

- One Preferred Provider operator uses helicopters primarily to transport critically ill or injured patients and must be ready to be airborne within 10 minutes of accepting a call.
- Two Critical Care operators use either helicopters or airplanes primarily to transport critically ill or injured patients and must be ready to be airborne within 10 minutes of accepting a call, 90% of the time.
- Ten Standing Agreement operators use airplanes primarily to transfer patients between hospitals and to transport organs for transplant. These operators are required to notify the dispatcher within 10 minutes whether they accept the call, as only these operators may decline a dispatcher's request for an air ambulance. On accepting a call, the pilot is required to request takeoff

clearance within 30 minutes of the agreed departure time.

All contracts allow for delays due to extenuating circumstances, including bad weather.

During our audit, the Ministry informed us that it was monitoring air ambulance operators' actual reaction times only for code 4 (emergency) calls, and only for Preferred Provider and Critical Care operators. There was no regular monitoring of reaction times for non-emergency calls, and the reaction times for Standing Agreement operators—for any type of call—were also not monitored.

We noted that Ministry monitoring was based on the average reaction time for code 4 calls for both the Preferred Provider and Critical Care operators. However, the Ministry did not ensure that Critical Care operators' reaction times were achieved 90% of the time, in accordance with their contract requirements.

Based on ministry approximations, we calculated, as shown in Figure 1, that in fact the reaction times achieved by Critical Care and Preferred Provider operators for code 4 calls for the 2003/04 fiscal year were not meeting the contract requirements for a significant percentage of flights. Furthermore, we noted that, although the Standing Committee on Public Accounts recommended in 2001 that penalties be levied against operators whose reaction times did not meet their contract requirements, no such penalties were in fact levied.

### RECOMMENDATION

To help ensure that the air ambulance dispatch centre and operators respond to calls in a timely manner, the Ministry should more closely monitor actual reaction times against ministry standards and contractual requirements and develop a strategy to improve both dispatch and operator reaction times, especially where these reaction times are being significantly exceeded.

## MINISTRY RESPONSE

On July 20, 2005, the Ontario government appointed the Ontario Air Ambulance Services Corporation (OAASC), a non-profit body, to be responsible for all air ambulance operations, including the medical oversight of paramedics, air dispatch, and the authorizing of air and land ambulance transfers, as well as the development and implementation of the software system technology used for air ambulance dispatching.

The Ministry agrees to work with the OAASC to have reaction-time fields built into the new air ambulance software system in order to monitor performance for emergency calls.

## DECISION TO DISPATCH

Current ministry policy states that an air ambulance can be used instead of a land ambulance when:

- transfers cover a distance of at least 240 kilometres;
- all land ambulance alternatives have been exhausted;
- there are poor road conditions or severe weather; or
- specialized equipment or medical escorts are required.

However, a first responder, paramedic, or dispatcher may use their judgment to override these criteria for on-scene emergencies requiring a helicopter.

We recognize that the judgment of such personnel may be the most appropriate means of determining whether an air ambulance should be used. However, as we noted in our 2000 audit of Emergency Health Services, the Ministry did not require that the dispatcher record why an air ambulance was required. Given the scarcity and cost of air ambulance resources, monitoring that these resources are being used only when necessary is important. It would therefore be helpful for the Ministry to have documented reasons for the decision to dispatch, particularly in those cases when judgment, rather than the predetermined criteria, was the deciding factor. Accordingly, we reiterate the view we expressed in our 2000 audit report that it would be prudent for the Ministry to ensure that it has sufficient information to monitor the appropriateness of the use of air ambulances.

Once the necessity for an air ambulance is established, the dispatcher selects an aircraft based on flight time, cost, and patient need. In 2001, the Ministry implemented a new call-tracking system that was to use information on the patient's medical condition and flight requirements to select the best-suited and most economical aircraft. However, ministry documents indicated that this system was

**Figure 1: Code 4 Calls Response-time Requirements and Actual Performance, by Type of Ambulance Service, 2003/04**

Source of data: Ministry of Health and Long-Term Care

Type of Ambulance Service	Response Requirement	Compliance Rate (%) <sup>1</sup>
Preferred—helicopter	ready to be airborne within 10 minutes of acceptance of flight	67
Critical—helicopter	ready to be airborne within 10 minutes of acceptance of flight with 90% compliance rate <sup>2</sup>	61
Critical—airplane	ready to be airborne within 10 minutes of acceptance of flight with 90% compliance rate <sup>2</sup>	38

1. Based on ministry approximations as the Ministry did not track the actual time when the flight became airborne.

2. The requirement is 20 minutes if the aircraft required refuelling. However, the Ministry did not track the calls that used aircraft which required refuelling.

expected to experience increasing incidents of failure. In addition, 90% of flight planning activity was still being done manually. The Ministry informed us that the Integrated Air Information System Project, discussed in greater detail in the last section of this report, will address this issue.

## RECOMMENDATION

To better ensure that air ambulances are used only when necessary, the Ministry should require that the reasons for air ambulance use and for the selection of particular aircraft be sufficiently documented. The Ministry should also periodically review this information to identify the need for any corrective action.

## MINISTRY RESPONSE

Air ambulance service is a time-sensitive and complex operation, and the merits of documenting all decision-making have limits when weighed against the associated delays such an approach can cause in actually providing an air ambulance response.

In concert with the Ontario Air Ambulance Services Corporation, the Ministry will undertake to include additional documentation of decision-making in new computer software that will be used in the dispatching of air ambulances, as long as such use does not impair system operational response capability or safety.

The Ministry will also undertake to periodically have a review conducted of the information and provide the Director of the Emergency Health Services Branch with the results of the review.

## CANCELLED CALLS

The Ministry informed us that once dispatched, an air ambulance may be cancelled due to changes in a patient's condition, deteriorating weather conditions, or use of a land ambulance. Although a certain level of cancellations is to be expected, it would be useful, in order to ensure that air ambulance resources are being used appropriately, to analyze information about the cancellations, including comparing the reasons for cancelling a call with the reasons for selecting a particular air ambulance in the first place. Once dispatched, an air ambulance is in use and therefore is generally unavailable for other patient calls—which may increase reaction times for subsequent patients—and the Ministry may incur charges. For example, once a Standing Agreement flight is airborne, the Ministry must pay the costs incurred for the flight on cancellation.

We noted that the Ministry tracked the number of dispatched air ambulances (both helicopters and airplanes) that were subsequently cancelled. In the 2003/04 fiscal year, the most recent year for which full data were available, cancellations were as illustrated in Figure 2.

The Ministry also tracked cancelled helicopter calls for the subsequent fiscal year. We noted, based on this information, that the percentage of helicopter calls cancelled after dispatch increased from about 27% in the 2003/04 fiscal year to 33% in 2004/05. In addition, approximately 42% of the nearly 2,500 helicopter cancellations in 2004/05 occurred after the helicopter was airborne. The Ministry informed us that the increased cancellations resulted from a decision to dispatch helicopters in more situations, since, under its contracts with the helicopter operator, the Ministry was already paying for certain costs (for example, staff costs) regardless of whether the helicopters were used or not. In our view, such a high level of cancellations warrants a formal ministry follow-up, especially where air ambulances already airborne are cancelled.

**Figure 2: Cancelled Air Ambulance Flights, 2003/04**

Source of data: Ministry of Health and Long-Term Care

Aircraft	# of Flights Dispatched	# of Flights Cancelled	% of Flights Cancelled
helicopters (all)	6,782	1,860	27.4
airplanes (operated by Critical Care providers)	1,481	77	5.2
airplanes (operated under Standing Agreements)	6,779	500	7.4
<b>Total</b>	<b>15,042</b>	<b>2,437</b>	<b>16.2</b>

## RECOMMENDATION

To better ensure that air ambulances are available to meet patient needs and are used in a cost-effective manner, the Ministry should:

- periodically review the level of cancelled calls;
- where the level of cancelled calls is high, analyze the reasons for cancellations; and
- take action to minimize unnecessary dispatch of aircraft.

## MINISTRY RESPONSE

The Ministry distributes a Helicopter Utilization Guide and training materials to ensure that air ambulance on-scene responses are requested and undertaken in an appropriate manner.

The Ministry will work with the Ontario Air Ambulance Services Corporation to include call cancellation statistics and rationale information fields in the new air ambulance database that is under development.

The Ministry will also have the call cancellation information analyzed on a regular basis and reported to the Director of the Emergency Health Services Branch.

## OPERATOR SERVICE REVIEWS

All air ambulance operators must be certified under the *Ambulance Act* at least once every three years.

Certification is based on the results of scheduled service reviews conducted by the Ministry in conjunction with the base hospital. These reviews include an evaluation of the qualifications of the patient-care providers, the maintenance of aircraft and equipment in accordance with Ministry standards, and other measures taken to ensure proper patient care.

We noted that about 70% of the service review files in our sample did not contain supporting evidence for the decision to certify or recertify air ambulance operators. Specifically, in some instances operators had definitely not met the certification criteria, while in other instances it was unclear whether or not they had done so. We also noted that the Ministry has not put in place a documented policy stipulating when service review deficiencies should be followed up to ensure that they had been corrected or when consideration should be given to revoking an air ambulance operator's certification. Furthermore, although the Ministry informed us that it contacted operators to inquire whether deficiencies were corrected, we saw little documented evidence of this follow-up. In addition, while the Ministry informed us that it also visits operators' sites, it was unable to provide any documentation confirming that these site visits determined whether operators had actually corrected service review deficiencies.

For example, the Ministry's service review of one operator in 2002 indicated a number of deficiencies, including insufficient staff, no documentation of employee qualifications or completion of

mandatory training, and no system to ensure that air ambulance call reports were accurately completed (call reports are the medical record used by paramedics to document each call). However, the operator was certified without any additional documentation to support this decision and without any documented follow-up to determine if the identified concerns were ever rectified. The Ministry informed us that the continued use of this air ambulance operator was required to meet the needs of patients. The Ministry further advised us that, notwithstanding the deficiencies noted, it believed there was no direct threat to patient safety while the operator worked towards correcting the deficiencies.

We recognize that it may be impractical or inappropriate to immediately refuse to recertify an air ambulance operator in cases where the Ministry has not identified a direct threat to the safety of patients. However, some violations, especially when they recur, may require the application of such sanctions as monetary penalties to encourage more timely compliance. We noted that, while contracts with air ambulance operators allowed for funding to be withheld if the operator defaults on material contractual obligations (by, for example, providing substandard services), the Ministry had never withheld funding as a result of service review deficiencies. Furthermore, the contracts had no specific provisions for penalties for service review deficiencies.

## RECOMMENDATION

To help ensure proper patient care by air ambulance operators, the Ministry should:

- ensure that deficiencies identified in service reviews are corrected on a timely basis; and
- determine the circumstances under which it will apply sanctions or consider revoking an operator's certification.

## MINISTRY RESPONSE

Certificates for air ambulance services expire in December 2005. Review schedules are being finalized, as are amended survey assessment tools.

Review reports will be finalized and distributed in a timely manner, and revisits and follow-ups will be completed in a timely manner. The purpose of conducting reviews is to identify deficiencies in meeting the standards and to allow an opportunity for operators to correct those deficiencies.

Sanctions and the revocation of a certificate are considered as last resorts when all other reasonable efforts of recourse to resolving the deficiencies of an operator have failed. The Ministry will further clarify when such sanctions or revocation options are to be considered.

## LOCATION OF AIR BASES AND AIRCRAFT

The cost-effective use of air ambulances depends, among other things, on matching the demand for air ambulances to the placement of air bases and aircraft. While the Ministry has some information on the demand for air ambulances, ministry documents indicated that adequate information was not readily available on the number and type of aircraft needed, the required hours of operational availability, or the locations to base the aircraft in order to best meet patient needs. In addition, while the Ministry did review demand in one large municipality in 2000, and in 2003 reviewed the use of two Toronto-based helicopters and decided to relocate one helicopter to the near north for the summer trauma season, it has been more than 10 years since the Ministry formally reviewed the demand for and placement of air ambulances province-wide.

Coroners' inquests in 1999 and 2002 recommended an evaluation of the need for helicopter

landing pads (at hospitals, for example) and related funding. Ministry documents from 2003 noted that inadequate access to helipads (helicopter landing pads) contributes to loss of life, particularly in areas with little or no land ambulance service. The lack of access to helipads also poses safety and liability issues, and it reduces public access to air ambulance services. However, the Ministry has never conducted a systematic province-wide review of the need for, and availability of, helipads.

### RECOMMENDATION

To better ensure that air ambulances are available to meet patient needs, the Ministry should formally assess the number and type of air ambulances needed, the required hours of operational availability, and the optimal locations for aircraft bases and landing areas, including helipads.

### MINISTRY RESPONSE

The Ministry has informally assessed this information each time a contract award for air ambulance provider services is contemplated. The Ministry will discuss the need to formally assess this with the Ontario Air Ambulance Services Corporation prior to initiating future contractual requests.

### LINES OF AUTHORITY

In December 2001, a coroner's inquest cited public and community health concerns over the operation and administration of Ontario's air ambulance program, and questioned the delivery of the program. The inquest noted a lack of understanding about the capabilities of air ambulances, and when they should be used. The coroner recommended that an independent review be conducted.

As a result, the air ambulance base hospital engaged the Commission on Accreditation of Medical Transport Systems, an independent American organization, to conduct an accreditation review of Ontario's air ambulance program in 2003. The Commission's review found that the program's effective operation was inhibited by the absence of a clear line of authority among the dispatch centre, the base hospital, and the air ambulance operators responsible for the service. The Commission noted that advantages of a clear line of authority include:

- assurance that paramedics across the province work under the same policies and procedures; and
- a quality-improvement process that uses consistent and comparable data on service delivery to evaluate air ambulance services.

Subsequent to the completion of our audit, in July 2005 the Ministry announced that a newly created Ontario Air Ambulance Services Corporation would become responsible for all air ambulance operations—including medical oversight of all paramedics, air dispatch, and authorization of transfers between air and land ambulances—and would thereby be expected to establish clear lines of authority.

### RECOMMENDATION

To enable the effective co-ordination and delivery of air ambulance services, the Ministry should ensure that the lines of authority are clarified among air ambulance dispatch, base hospital, and operators.

### MINISTRY RESPONSE

The new service delivery model, as provided by the Ontario Air Ambulance Services Corporation, will clarify the lines of authority and thereby address the Commission on Accreditation of Medical Transport Systems' recommendations.



## ACQUISITION OF OPERATOR SERVICES

The Ministry uses a competitive process to contract with Standing Agreement, Critical Care, and Preferred Provider air ambulance operators.

Operators who meet the Ministry's minimum requirements, including certification, and who wish to be on a roster to provide air ambulance services under Standing Agreements submit bids for their services. These bids can be adjusted every six months. The Ministry uses the Standing Agreement operators to respond to air ambulance calls when Critical Care and Preferred Provider operators are not available. The Ministry generally requests the service of the Standing Agreement operator that can meet the patient's needs at the lowest cost.

In 2000, the Ministry engaged a consulting company specializing in public-sector procurement management to assess the Ministry's process for obtaining Critical Care air ambulance operators. The consultant concluded that the process was fair, equitable, and consistent with the request-for-proposal (RFP) requirements.

The Ministry contracted for Preferred Provider air ambulance helicopter services in September 1999 as a result of an RFP process. Ministry documents noted that the Preferred Provider contract, unlike the Standing Agreements, was intended to establish a fixed cost for helicopter air ambulance services for the next five years, with no price escalations over the life of the contract. The contract was for a three-year term, renewable at the Ministry's option for another two years, and "such extension shall be upon the terms and conditions of this Agreement or any amendment thereto as may be agreed upon in writing by the parties." However, either party could terminate the contract without a reason with 180 days' notice.

In fall 2001, the Preferred Provider refused to complete the ministry-initiated two-year extension at the contract rate, claiming that it had experienced vastly reduced profitability due to escalating costs. Furthermore, the Preferred Provider stated

that it required higher fees to continue the helicopter service and provided notification in April 2002 that it was terminating the contract. To ensure service delivery, the Ministry paid the requested cost increase of \$10 million, over and above the contract rate, for the two-year contract extension. Ministry staff informed us that it relied on one organization for most air ambulance helicopter services because there were few other providers in Ontario.

The Ministry's Internal Audit Service completed a review of the Preferred Provider contract in 2002 to determine the validity of the provider's claims of reduced profitability, but the results were inconclusive. The Internal Audit Service also noted, however, that the two-year extension should allow ample time for the contract to be re-tendered. We noted that in 2004, the Ministry extended the contract with the Preferred Provider for one more year, for an additional \$500,000 above the rate of the previous year. In addition, although the Ministry had requested that the Preferred Provider contract be tendered, the Management Board of Cabinet deferred doing so and authorized the Ministry to negotiate an additional contract extension of up to three years with this Preferred Provider.

### RECOMMENDATION

To better ensure that air ambulance helicopter services are delivered economically, the Ministry should evaluate the risks posed by its significant dependence on one preferred service provider and develop a long-term strategy to encourage a more competitive environment.

### MINISTRY RESPONSE

The performance agreement to be executed between the Ministry and the Ontario Air Ambulance Services Corporation will require a competitive procurement environment for air ambulance services that is consistent with government requirements.

## PATIENT BILLINGS

Individuals are generally billed for the cost of their air ambulance trip if they are not covered under the Ontario Health Insurance Plan (OHIP). After an air ambulance trip has been completed, the Ministry determines if the flight is billable based on the air ambulance call report, and validates the information as necessary with the hospital. In the 2003/04 fiscal year, the Ministry billed individuals, mainly Americans and Canadians from other provinces, \$537,000 for air ambulance services.

At the time of our last audit in 2000, patients travelling on aircraft operated by Standing Agreement operators were billed for the actual costs incurred to provide the service, while patients using another type of air ambulance were billed only for the time they were aboard the aircraft. We therefore recommended that the Ministry establish effective procedures to ensure that all patients are invoiced in a timely manner for the total cost of the service provided, regardless of the air carrier used.

We noted that most health-care services, such as those provided in hospitals, are to be billed to patients not covered by OHIP at rates that are at least equal to the actual cost of providing those services. In January 2004, however, the Ministry changed the amount that it would bill for air ambulance trips to “reasonable costs,” defined as 150% of the costs associated with the amount of time, or distance in the case of Standing Agreement contracts, that the patient spent on board the aircraft. “Reasonable costs” excluded the charges associated with the time it took the aircraft to reach the patient for pickup. The hourly cost to be transported by Preferred Provider and Critical Care operators was determined using the air base with the lowest costs. The kilometre cost to be transported by a Standing Agreement operator was based on the costs billed to the Ministry for that portion of the flight. As illustrated in Figure 3, we calculated, using ministry data, the average cost per flight charged before and after the policy change. The charges to patients

**Figure 3: Average Billing per Flight**

Source of data: Ministry of Health and Long-Term Care

Type of Contract	April–Dec 2003 (\$)	Jan–Oct 2004 (\$)	% Decrease
Standing Agreement operators	3,875	2,101	46
Critical Care and Preferred Provider operators	7,503	3,057	59

who had been transported by Critical Care and Preferred Provider operators decreased by an average of 59%, and charges for transportation by Standing Agreement operators decreased on average by 46% and are less than the total actual costs of providing the air ambulance service.

### RECOMMENDATION

To help ensure that the costs of air ambulance services are recovered in those circumstances where the Ministry has determined recovery is appropriate, the Ministry should consider billing actual costs similar to other Ontario health program billing practices.

### MINISTRY RESPONSE

The Ministry is currently recovering the estimated cost of transporting the patient. Implementing this recommendation would result in charging air ambulance users for the system costs of repositioning the available aircraft (for example, the cost of travelling to pick up the patient and of returning the aircraft to its base location). In concert with the Ontario Air Ambulance Services Corporation, the Ministry will review whether it is reasonable to charge these system costs to patients not covered by the Ontario Health Insurance Plan, and/or to establish a maximum recoverable amount.

## INTEGRATED AIR INFORMATION SYSTEM PROJECT

The management of air ambulance operations involves various computerized functions, including applications relating to call taking and routing, dispatching, and flight and fuel management. In 2001, the Ministry initiated the Integrated Air Information System Project (Project), then scheduled for completion in April 2003, to integrate these information systems. The Project also included plans to integrate this proposed air ambulance system with the computer-assisted land ambulance dispatch system then being introduced by the Ministry. With all these systems integrated, air ambulance dispatchers were to have single-point access to flight and medical information, enabling them to communicate more easily with land ambulance dispatch centres. This would better ensure that patient needs were met in an efficient manner.

In 2003, the Ministry arranged with the air base hospital to independently develop a new medical algorithm to prioritize patients. This new algorithm was to form part of the Project. In November 2004, however, the base hospital informed the Ministry that it was no longer willing to have its algorithm become part of the Project because of a lack of cooperation by the Ministry.

In February 2005, the Ministry agreed to pay the base hospital about \$430,000 to independently develop a computer-aided dispatch system for air ambulances, a central component of the Project. However, we believe there is a risk that an independently developed computer-assisted dispatch system may prove costly and be unable to be readily integrated with the land ambulance dispatch system.

### RECOMMENDATION

To more efficiently meet patient needs with respect to ambulance services, the Ministry should ensure more timely and economical integration of air ambulance information systems, as well as balanced communication between air and land dispatch systems.

### MINISTRY RESPONSE

The Ministry will work with the Ontario Air Ambulance Services Corporation to assist it to establish a substantially improved air ambulance dispatch information system.