Health Information and Quality Authority

An tÚdarás Um Fhaisnéis agus Cáilíocht Sláinte

Plain English summary of the *Health technology assessment evaluating the treatment and transport options for Priority 1 transfer patients*

13 November 2017

Plain language summary

The issue

Ireland does not have national heart or liver transplant services for children. Instead, children requiring transplant are registered on UK transplant lists and transfer to specialist centres in England for their transplant surgery. These patients must present at the transplant centre in the UK within four hours of notification of a donor heart becoming available and within six hours of a liver becoming available. They are known as "Priority 1 transfers" by the National Ambulance Service, which coordinates their transport. Priority 1 transfer is '*the transfer of a patient by air from Ireland to another country within eight hours to access urgent treatment without which the patient's life or health is significantly endangered*'. Almost all Priority 1 transfers have been children who needed urgent transport to England to undergo transplant surgery following a suitable heart or liver becoming available. There were nine Priority 1 transfers in 2016.

There is no dedicated air ambulance service in Ireland. Priority 1 transfers have mainly been provided by the Air Corps and the Irish Coast Guard on an "as available" basis. Due to staff capacity constraints, the Air Corps reduced its 24 hours, seven days a week roster to a more limited day time, five days a week roster in June 2016. The Irish Coast Guard have carried out most of the transfers since then. However, following advice from the Irish Aviation Authority, the Irish Coast Guard informed the National Ambulance Service that from 5 September 2017 it was no longer available for transport of Priority 1 transfer patients between 7.00pm and 7.30am. The Air Corps agreed to provide temporary night time cover for Priority 1 transfers until the 6 November 2017 to allow the Department of Health and the HSE time to identify a solution.

The aim of the health technology assessment

The Department of Health asked the Health Technology Assessment (HTA) team at the Health Information and Quality Authority (HIQA) to carry out a rapid assessment to identify different approaches for the treatment or transport of Priority 1 transfer patients.

What are the main findings?

Since 2012, there have been between one and nine (average five) Priority 1 transfers of children for transplant surgery per year. Three quarters of these transfers occur between 7pm and 7am.

Paediatric heart transplant is a rare activity. There are two paediatric transplantation centres in the UK. They performed a total of 38 heart transplantations during the financial year 2015/2016. Average waiting time from day of registration on the

transplant list ranged from 81 days for those ever classified as urgent to 357 days for those never classified as urgent. There are three paediatric liver transplantation centres in the UK. They performed a total of 81 liver transplants in the financial year 2015/2016. The average waiting time from day of registration on the liver transplant list ranges from four days for those classified as super-urgent to 72 days for all others. The current arrangements to transfer these children to the UK place a substantial emotional, financial and logistical burden on patients and their families.

An alternative to Priority 1 transfer is to provide these transplant surgeries in Ireland. To be safe and effective, a transplant service must have adequate access to donor organs and carry out enough procedures for staff to maintain competence. These issues would need to be considered if establishing a national paediatric heart or liver transplant service. Another alternative is that children listed for transplant could move to the UK to be near the transplant centre while they wait for a donor organ to become available. However, this is not an option for some patients because of clinical or family reasons. Priority 1 transfer would still be necessary for those patients who could not move to the UK.

A wide range of alternative approaches were identified for the transport or treatment of Priority 1 transfer patients. These were divided into immediate, short-term (to be implemented within six months) and long-term alternatives. This recognised the need for an immediate alternative that could be put in place on the 6 November 2017 while noting that there may be longer term alternatives that would be more sustainable and efficient.

The immediate alternatives identified included funding a dedicated aircraft and aircrew from a commercial provider; chartering aircraft and aircrew as needed; funding a dedicated Irish Coast Guard aircrew to provide night-time cover operating an “as available” Irish Coast Guard helicopter; providing financial assistance and support to patients and families who move near to the transplant centre in the UK; or leasing or purchasing a property in the UK near to the transplant centre for families to use if they choose to move to the UK until they receive the transplant.

The short-term alternatives (to be implemented within six months) identified included the HSE leasing and operating an aircraft; partnering with a Northern Irish service provider to provide an all-island approach; funding of aircraft and aircrew through partnership with a registered charity; renegotiating the existing Irish Coast Guard contract to allow for a night-time service at one or more bases; seeking permission for the Irish Coast Guard to undertake Priority 1 missions on a 24 hour roster to the UK within their existing regulatory framework; or purchasing public inpatient beds in the UK for selected patients waiting for a transplant. A number of these short-term options are less certain and depend on external factors, but may offer less costly yet reliable solutions.

The long-term alternatives identified included a 24/7 Air Corps air ambulance service that would carry out Priority 1 transfers when it was available; the HSE and the Air Corps replicating the Garda Air Support Unit model, where the Air Corps would provide a dedicated air crew to operate and maintain an aircraft provided by the HSE; negotiating changes to the Irish Coast Guard contract on its renewal in 2022 to include additional aircraft and aircrew for emergency medical services including Priority 1 transfers; tendering for a national dedicated air ambulance service; setting up a paediatric heart and liver transplantation service in Ireland; or developing a National Integrated Aeromedical Transport Service.

The cost-effectiveness of the various alternatives was not explicitly examined. Most of the options identified were noted to come with a high budget impact for the State.

What are the conclusions?

HIQA advises that if the HSE wishes to continue to provide a night-time Priority 1 transfer service, then the best immediate solution is to fund a dedicated aircraft and aircrew from a commercial provider from the 6 November 2017. Alternatively, the HSE could ask the Irish Coast Guard to recruit a dedicated aircrew to operate the Dublin-based helicopter, if available. Both of these options carry a high cost for, on average, not more than four night-time transfers per year.

There are three short-term options that should be considered further. One option to explore is renegotiation of the existing contract to provide Irish Coast Guard services to change one or more of the existing bases from a 24 hour to a 12 hour roster. This would allow the Coast Guard to fly Priority 1 transfers at night, if available. A second option is partnership with a registered charity delivering helicopter emergency medical services (HEMS) to lease a dedicated air ambulance at a lower cost than the HSE could negotiate with a private provider. The feasibility and cost of these two alternatives is not certain. The costs would have to be compared to the on-going cost of a commercial provider. One final short-term option is to explore the scope for the Irish Coast Guard to fly night-time Priority 1 transfers to the UK under the existing regulatory framework, having considered any potential safety issues.

The preferred long-term option is likely to be based around either the Irish Coast Guard or the Air Corps. When the next Irish Coast Guard contract is negotiated, potentially in 2022, it could require provision of an additional aircraft and aircrew whose primary role is as an air ambulance service. Alternatively, the Air Corps could be engaged, either through the provision of an air ambulance service on an “as available” basis or through a model like that used by the Garda Air Support Unit. The Air Corps options would leverage off existing state resources, but it depends on the Air Corps having staff capacity in the long term.

In the long term, design of a National Integrated Aeromedical Transport Service for Ireland could provide a reliable and sustainable service by providing access to multiple aircraft and aircrew from one or more providers. Such a service could provide pre-hospital and inter-hospital transfers in Ireland as well as Priority 1 transfers abroad and patient repatriation. It could represent a better use of resources than a service designed for Priority 1 transfers only.

Given the substantial burden on patients and their families, consideration should be given to resourcing a paediatric transplant liaison officer to provide comprehensive support to families accessing transplant services in the UK.

The selection of options for treatment and transport of Priority 1 transfer patients should be guided by affordability, the impact on other state services and the requirement to maximise the delivery of safe, effective patient care.

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