

Strengthening Referral Networks for Ambulatory Patients with Advanced Heart Failure: A Multi-Centre Quality Improvement Project

Luis Martinez, Stephen Pettit, Clive Lewis, Sai Bhagra, Anna Kydd, Jayan Parameshwar

Royal Papworth NHS Foundation Trust

Approximately 5% of the patients with heart failure (HF) progress to advanced stages every year. Advanced HF is associated with very high morbidity and mortality.

Candidates for specialized interventions, like heart transplantation (HTX), should be identified early and referred for evaluation to an advanced HF centre.

Delayed referral or lack of referral in these cases can have important adverse consequences for patients and their families, as well as resource utilization.

BACKGROUND

In our centre, ambulatory patients with advanced HF who are being considered for HTX undergo a comprehensive evaluation over a 2-day period.

This process involves a series of investigations to assess prognosis and identify potential contraindications, including tests that are invasive or have limited availability, like cardiopulmonary exercise testing or right heart catheterization. They also meet a member of the transplant team and receive information about risks and benefits of HTX.

Given the significant investment of time and resources involved, we are limited to assessing a maximum of 2 patients per week and a total of approximately 80 patients per year. Therefore, adequate selection and prioritisation of the patients is essential to optimise the use of available resources.

Prior to this project, there was not a standardised referral pathway for patients with advanced HF. Both the timing of referral and the information provided about the patient were decided at the discretion of the referrer. This system resulted in a difficult triage of the patients and frequently led to delays or inappropriate assessments.

OBJECTIVES

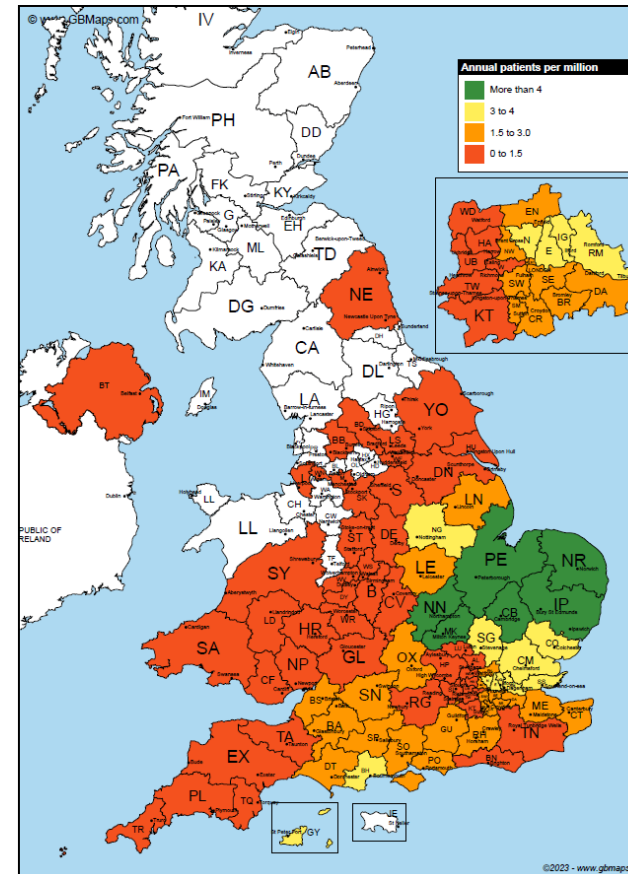
- To establish a collaborative network with other tertiary centres based on regular meetings to discuss advanced HF referrals.
- To raise awareness among referrers about the indications and contraindications for HTX and the referral process, ensuring that eligible patients are identified and referred in a timely manner.
- To evaluate the impact of the project on referral rates and patient outcomes, in order to assess the effectiveness of the interventions and identify opportunities for further improvement.

MATERIALS AND METHODS

We decided to start this project collaborating with our key referring centres, those with higher referral rates (see map) and an already established working relationship, although we could potentially expand this to other centres in time.

We contacted the HF teams at those centres and scheduled meetings with them to discuss potential advanced HF referrals. These meetings would happen remotely and could be repeated 3 monthly.

We created a proforma template for the meetings that summarised the main information required to assess the patient's transplant candidacy (cardiac history, comorbidities, smoking status, etc.).



Average annual advanced HF referrals per million population over the last 12 years

RESULTS

Since this project started in October 2022, we have had 8 remote meetings with 5 different HF teams.

The overall feeling is that these meetings have been successful. The number of patients waiting for an ambulatory 2-day assessment has increased. We have been able to prioritise those patients at higher risk of deterioration to meet them in an elective fashion rather than on an inpatient basis after having been hospitalised with a decompensation. We have also managed to avoid assessing patients that had clear contraindications for HTX or were clearly too well for listing.

The feedback from the referrers has been good. Consultants, registrars/fellows and specialist nurses at these key referring centres are now actively looking for ambulatory advanced HF patients to discuss.

We plan to evaluate the impact on patient clinical outcomes in the coming months.

CONCLUSIONS

In conclusion, this project aimed to improve the referral of patients with advanced HF for consideration of HTX by establishing a network of referring centers based on regular meetings between teams.

The project has resulted in an improvement in the referral process and increase in the number of eligible patients identified and referred in a timely manner.

REFERENCES

1. Guidance for Timely and Appropriate Referral of Patients With Advanced Heart Failure: A Scientific Statement From the American Heart Association/Morris et al. *Circulation*. 2021;144:e238–e250.
2. Cardiac transplantation: indications, eligibility and current outcomes. Bhagra et al. *Heart* 2019;105:252–260.