

DEVELOPMENT AND HEALTH ECONOMIC EVALUATION OF A NOVEL AMBULATORY HAEMATOLOGICAL CANCER SERVICE

Authors:

Christopher Dalley
Aileen Nield
Flora Swanborough
Steve Harrison
Silvia Hummel
Sandra Ward

Yvonne Goddard
Rory McGoldrick
Jayne Davis
Mark Ritson
Josh Wright
John Snowdon
Nick Morley

The Challenge

New treatment pathways for patients with blood cancer are needed to meet projected demands and patient expectations because:

1. The incidence of cancer is set to rise by 25% over the next 15 years,
2. Many cancer patients desire treatments closer to home (Cancer Reform Strategy)

Our Response:

Ambulatory Care (AC) has the potential to deliver these requirements, and save money.

We developed AC treatment pathways for:

1. Patients with acute myeloid leukaemia (AML) requiring consolidation chemotherapy
2. Lymphoma patients in need of high dose therapy with stem cell support (HDC).
3. Lymphoma patients needing salvage chemotherapy.

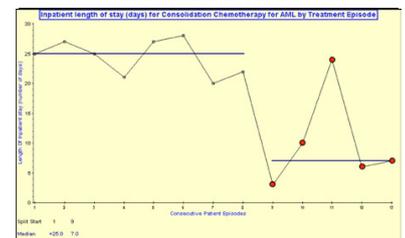
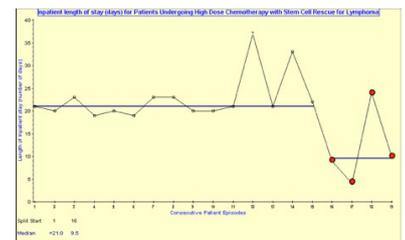
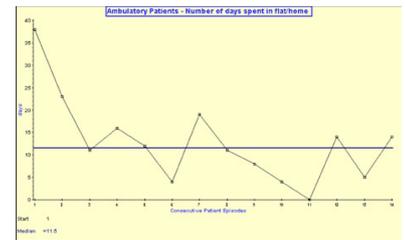
We used Clinical Microsystems as a service improvement tool to design AC treatment pathways and to engage staff and patients in the process. We used process mapping, plan, do, study act cycles of service improvement, posters, and questionnaires.

The economic impact of AC was assessed using computer simulation modeling by Sheffield School of Health and Related Research (ScHARR).

Results

Between April 2011-February 2012 we treated 13 patients with blood cancer using AC pathways. All patients treated gave positive feedback.

Four AML patients received consolidation chemotherapy using AC in 5 separate treatment episodes. The median inpatient length of stay (LOS) for this group was 7.0 days compared with a median of 25 days for AML patients who received standard consolidation chemotherapy as an inpatient. Four patients with lymphoma received HDC using an AC pathway. For this group of patients median inpatient LOS was 9.5 days compared with a median of 21 days for lymphoma patients who received the identical treatment as an inpatient. Computer simulation modeling predicted that by using AC, it would be possible to perform additional 6-10 bone marrow transplants per year in a haematology unit with similar bed capacity to ours if AC was introduced. In addition the computer model indicated a 7-11% reduction in yearly treatment costs if AC were to be adopted.



Summary:

1. AC leads to a reduction in inpatient length of stay when used to treat patients with AML or lymphoma.
2. Cost reductions and release of latent inpatient capacity are positive 'economic' consequences of AC.
3. Patients who receive AC report enhanced patient experience.
4. Clinical Microsystems ensured that patients and staff worked together to deliver improved treatment pathways and is an effective service improvement tool.

What Our Patients Had To Say:

"Staying at home had the added benefit of being able to sleep in your own bed"

"It was the best option for me as I hate being in hospital"

"It put me on a quick road to recovery"

"The best thing was being able to see my kids a lot more"

"Ambulatory care made our life a lot easier"

"The major benefits of ambulatory care were sleep and food, which were in my opinion the most important"