Improving Patient and Financial Outcomes in the NHS: Early Arthritis Service Increases Patient Satisfaction Whilst Saving Costs

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Background

- Prior to 2016, the Luton and Dunstable Hospital Rheumatology department was failing to meet a number of key clinical, patient experience and financial outcomes:
  - The percentage of patients achieving a Disease Activity Score 28 (DAS28) ≤3.2 (low disease activity) was low, at 38.1%;
  - Newly referred early arthritis (EA) patients waited for an average of >45 days for their first appointment, double the waiting time recommended by the National Institute for Health and Care Excellence (NICE);[1]
  - The department was unable to accommodate patients being referred to the hospital, and their capacity was 42.8% of the national average;
  - As a result there was a 29% loss of referrals from both the Luton and Bedford Clinical Commissioning Groups (CCGs) and subsequently only 9% of patients met the best practice tariff requirements for rheumatology – a national tariff that incentivises and reimburses high-quality and cost-effective care;[2]
  - The cost of running premium rate initiative clinics for new and follow-up patients who were breaching the 18-week referral-to-treatment target was £26,500;[3]
  - The poor standards negatively impacted patient experience, with 26% of patients stating that they would not recommend the service.

Objective

- The Rheumatology department established a centralised, patient-focussed and multidisciplinary early arthritis service to improve clinical, patient experience and financial outcomes and meet national performance targets.

Methods

- The early arthritis service (EAS) was established in January 2016 and comprised:
  - Introduction of a dedicated referral proforma that was advertised locally and communicated to GPs, and an educational programme to ensure GPs referred suspected EA patients through the new EAS;
  - Running of six EA clinics per week, staffed by six Consultants, with availability of ultrasound and longer appointments to improve diagnostic accuracy;
  - Funding of a Clinical Nurse Specialist to achieve prescriber status to avoid delay in issuing disease modifying anti-rheumatic drug (DMARD) prescriptions; and
  - Introduction of a standardised approach to the early initiation of therapy, drug education and timely review of treatment outcomes.

Results

- Introduction of the EAS was associated with improved clinical and patient experience outcomes, and was cost-saving.

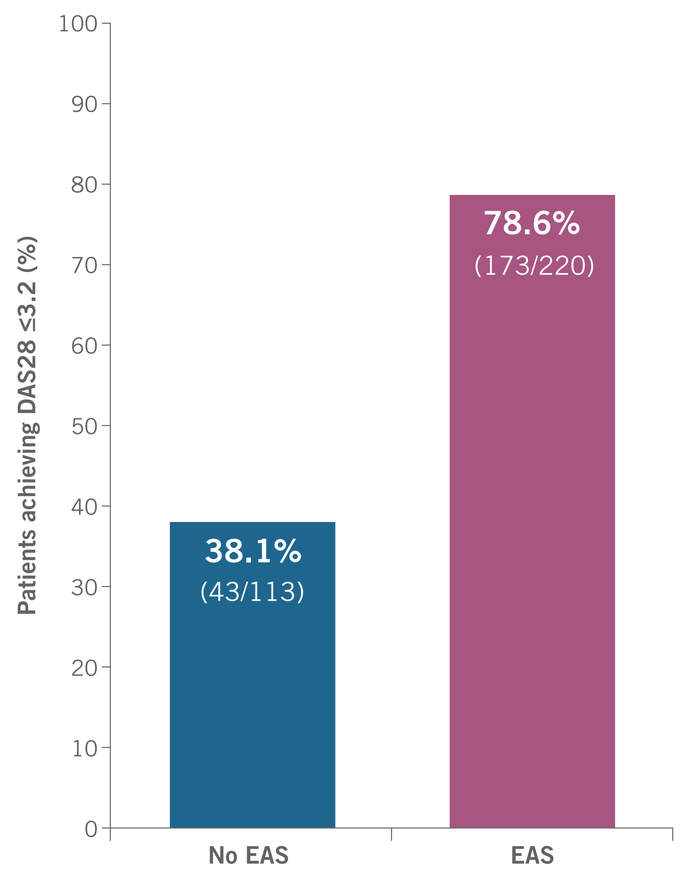
Clinical Outcomes

- After establishing the EAS in 2016, 78.6% of patients achieved a DAS28 score of ≤3.2 (low disease activity), compared to 38.1% in 2015 **(Figure 1)**.
- The median time to achieve low disease activity improved from 36 weeks in 2015 to 20 weeks in 2016. The median DAS28 score at 1 year was 2.6, compared to 3.6 in 2015.

Patient Experience Outcomes

- The introduction of the EAS improved the experience of patients being treated at the Rheumatology department, as presented in **Table 1**, including:
  - A 4.8-fold reduced mean waiting time for EA patients;
  - An improvement in overbookings over 1 year of 100%;
  - Increased capacity of the Rheumatology department to treat EA patients by >4-fold;
  - A 37% relative reduction in the rate of patients not attending appointments; and
  - A relative increase of 24% in the number of patients that would recommend the Rheumatology service.

Figure 1 Achievement of low disease activity before and after the introduction of the EAS



DAS28: Disease Activity Score 28; EAS: early arthritis service.

Table 1 Summary of patient experience outcomes across the rheumatology service* before and after the establishment of the EAS

	2015 – No EAS	2016 – EAS
Mean waiting time for first appointments, weeks	12	2.5
Overbookings over 1 year, n	700	0
EA patient capacity, n	126	562
DNA rate over 1 year, %	8.6	5.4
Patients would recommend this service, %	74 (n=100)	92 (n=167)

*The Luton and Dunstable Rheumatology department provides a comprehensive general and specialist service; DNA: did not attend; EA: early arthritis; EAS: early arthritis service; n: number of patients.

Financial Outcomes

- A number of financial gains were made following introduction of the EAS, as summarised below and in **Table 2**:
  - Absolute improvements in the share of referrals from Bedford CCGs by 17% and absolute increased referrals from beyond the Luton and Bedford CCGs by 7%;
  - A decreased cost/patient seen at the department (including new patients, follow-up appointments, overbookings and initiative clinics) due to the increase in total capacity of the Rheumatology department;
  - A reduction of 100% in the use of premium rate initiative clinics that were held for new and follow-up patients who were breaching the 18-week referral-to-treatment target;
  - An absolute decrease in the use of biologics by 20.4% in 2016 due to optimising prescribed medicines for EA patients, resulting in a cost-saving of ~£394,942.
- There is also potential for longer-term cost-savings due to the improvements observed in patient outcomes, as evidence suggests that earlier control of rheumatic diseases translates to better long-term outcomes.

Table 2 Summary of financial outcomes across the rheumatology service* before and after the establishment of the EAS

	2015 – No EAS	2016 – EAS
Referrals from Bedford CCG, %	11	28
Referrals from outside Luton and Bedford CCGs, %	14	21
Total capacity†	5,113	11,856
Cost/patient seen, £	198.88	74.98
Initiative clinics, n	53	0
Costs of initiative clinics, £	26,500 (n=53)	0 (n=0)
Use of biologics, %	26	5.6
Costs of biologics, £	534,147	139,215

*Rheumatology department provides a comprehensive general and specialist service; †Capacity for new patients and follow-up appointments; CCG: clinical commissioning group; EA: early arthritis; EAS: early arthritis service; n: number of patients.

Conclusion

- Efficiency gains from the introduction of the EAS service have improved patients' health and overall satisfaction with their treatment, whilst saving costs at this NHS Trust.

References

1. NICE (2013). Rheumatoid Arthritis: NICE Quality Standard [QS33]. Available at: https://www.nice.org.uk/guidance/qs33 [Last accessed 08.02.18]; **2.** British Society for Rheumatology (2013). Best Practice Tariff Q&A. Available at: https://www.rheumatology.org.uk/Portals/0/Policy/Best%20Practice%20Tariff/Best%20Practice%20Tariff%20QA.pdf [Last accessed 08.02.18]; **3.** Department of Health and Social Care (2015). The NHS Constitution for England. Available at: https://www.gov.uk/government/publications/the-nhs-constitution-for-england/the-nhs-constitution-for-england [Last accessed 31.08.18].

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PMS66