

# Improving Axial Spondyloarthritis Time to Diagnosis and Access to Treatment.

## BACKGROUND

Barnet Hospital is part of The Royal Free London NHS Foundation Trust situated in North London.

Within North Central London, there are no specific referral pathways for patients with suspected axial spondyloarthritis (AxSpA). At Barnet hospital, patients with suspected AxSpA were assessed, diagnosed, and managed within general rheumatology clinics.

Professor Tahir joined the Rheumatology team at Royal Free London NHS Trust in 2019 and had previously set up a specialist Ax SpA service in East London which had successfully reduced delay to diagnosis to 3 years [1]. Professor Tahir wanted to establish a specialist service at Barnet Hospital involving other healthcare professional including physiotherapists, nurses, pharmacists and radiologists.

The team at Barnet Hospital, were selected to join cohort two of the *Aspiring to Excellence* programme. This programme has provided the opportunity to focus on various service improvement plans with the aim of reducing delay to diagnosis to 1 year and provide a world class AxSpA service at the Trust.

## OBJECTIVES

The overall aim of the project is to improve the time from symptom onset to diagnosis to within 12 months, which is in alignment with the NASS Gold Standard. We also aim to improve access to treatment. The plan is to achieve this through multiple work streams improving public, primary and secondary care awareness of AxSpA. The aim is also to develop an inflammatory back pain pathway in North Central London and a specialist AxSpA service within the Rheumatology Department at Barnet Hospital. It is our opinion that these aims will have a positive impact on our local delay to diagnosis as well as improving patient access to treatment.

## METHODS

Initially, we conducted a survey to evaluate diagnostic delay in our AxSpA patient group. Patients were asked several questions to ascertain I) the time of symptom onset to initial consultation in rheumatology clinic and II) the time taken to be given an accurate diagnosis. They were also asked to document the different healthcare professionals that they had seen and the number of consultations that they had had with each professional. This baseline data will be used to assess the effectiveness of future strategies in reducing delay to diagnosis.

Regarding our public awareness campaign, we are designing advertising banners to be displayed in our Trust to alert the public to the symptoms of inflammatory back pain and how they can access our specialist service.

Within primary care, we have carried out education sessions for health care professionals to assist in the identification, referral, and management of patients with inflammatory back pain. We are also in the process of setting up a “pop up tool” to prompt clinicians in primary care to consider an inflammatory cause for symptoms when consulting patients with back pain. Through discussions with our local primary care networks, there are plans to update the current back pain pathway and develop a specific inflammatory back pain pathway to facilitate prompt referral to rheumatology for patients with suspected AxSpA.

Within secondary care, we have initiated research projects to evaluate firstly the prevalence of inflammatory back pain in patients with inflammatory bowel disease, psoriasis and anterior uveitis and whether such patients have been referred for a specialist rheumatology opinion. The results will be used to inform the development of staff education sessions.

We have been successful in establishing a specialist AxSpA service within the rheumatology department at Barnet hospital. We currently provide 1 consultant and 2 advanced practice physiotherapist sessions per week where we see a mixture of new and follow up patients. With the use of driver diagrams and regular PDSA cycles we have focused on improving the booking of patients into the clinics. Weekly rheumatology radiology meetings and virtual biologic meetings are now established with an aim of improving time to diagnosis and treatment. An MRI teaching programme is being developed to improve identification of the radiological features of AxSpA which we anticipate will have a positive impact on delay to diagnosis.

Within the outpatient physiotherapy department, a new AxSpA pathway has been developed, which includes access to a newly designed exercise group to improve patient access to treatment.

## RESULTS

42 patients completed the survey to evaluate diagnostic delay from symptom onset to diagnosis of AxSpA and the mean delay was 5.72 years, which is lower than the current 8.7 year national average. The survey highlighted that patients often saw multiple health care professionals prior to their diagnosis, highlighting a need for increased awareness and education among health care professionals. The survey was carried out in conjunction with Salford Royal and an abstract has been accepted at the BSR conference.

We have received positive feedback from our education sessions with 100% of participants likely to recommend our training and 97% of participants likely to change their practice because of the session. Participants commented that they “found the content very clinically relevant” and that the “information on differentiating mechanical and inflammatory back pain was excellent.”

Through carrying out regular PDSA cycles, there has been a significant improvement in the number of appropriate patients being booked in the specialist advanced practice physiotherapist AxSpA clinic. In May 2021, 0% of patients booked into the clinic were referred with suspected AxSpA whereas in March 2022, this had increased to 83%.

Patient feedback from the pilot physiotherapy exercise group was positive with participants being extremely satisfied and highly likely to recommend the sessions. Feedback from participants included “it was useful to meet people with the same condition”, and “attending the group motivated me to get fitter.” Individuals also commented that “an education session would be beneficial”, and “a local WhatsApp group to stay connected would be helpful. Patients have now set up a WhatsApp group which they run independently, and our first virtual patient education session is planned for April 2022 and will include a patient representative. It will provide an opportunity for patients to meet the team and ask any questions that they have about AxSpA.

## CONCLUSION

Despite the covid pandemic, over the past year we have been successful in setting up a specialist AxSpA service at Barnet Hospital. We have also collected local baseline data regarding delay to diagnosis, which will be invaluable when reviewing the effectiveness of our various work streams aimed at reducing delay to diagnosis. We have also started work on several other public, primary, and secondary care initiatives to improve awareness, identification, referral and treatment for patients with suspected AxSpA.

Over the next year we will update of the back pain pathway which will help to reduce unnecessary steps in the patient journey, reducing the time from initial consultation in primary care to a rheumatology opinion.

We will be focusing on our public awareness campaign to educate the public about the symptoms of inflammatory back pain and how to access appropriate services.

Over the next six months, the findings from our gastroenterology, dermatology and ophthalmology research projects will inform the development of our secondary care education programme. We will also continue with our primary care education programme which will be supported by the trial of the pop-up tool.

Being part of the *Aspiring to Excellence* programme has provided the opportunity for the team to have dedicated time to focus on our service and develop ideas for improvement. Utilising some of the QI methodology covered on the programme including the use of driver diagrams, PDSA cycles and run charts has assisted the identification of factors influencing the delay to diagnosis and has been beneficial when monitoring the effect of change. We will continue to use these tools over the next year when continuing our service improvements.

## REFERENCE

1 Adsheed R, Donnelly S, Knight P, Tahir H. Axial Spondyloarthritis: Overcoming the Barriers to Early Diagnosis-an Early Inflammatory Back Pain Service. Curr Rheumatol Rep. 2020 Aug 17;22(10):59. doi: 10.1007/s11926-020-00923-6. PMID: 32808099

## RECOMMENDATIONS

