

Project Title

A New Physiotherapy Service in Primary Prevention of Osteoporotic Fractures: Bridging The Gap To Excellent Care

Project Lead and Members

Project lead: Yiu Xin Yi

Project members: Lim Kian Chong

Organisation(s) Involved

Ng Teng Fong General Hospital

Project Period

Start date: Apr 2018

Completed date: Jun 2019

Aims

To start a formalised consolidated Osteoporosis Physiotherapy exercise programme in 1 month by preventing falls with improved function, and slowing down bone mineral density loss in these older adults with osteopenia and osteoporosis.

Background

See poster attached/ below

Methods

See poster attached/ below

Results

See poster attached/ below

Lessons Learnt

Existing physiotherapy services and demands/needs of patients should be consistently reviewed. Consolidating a formalised group exercise programme is a good example of catering to our patients' needs.

Conclusion

See poster attached/ below

Project Category

Care & Process Redesign

Keywords

Care & Process Redesign, Preventive Care, Safe Care, Patient Education, Quality Improvement, Plan Do Check Act, Nursing, Allied Health, Physiotherapy, Rehabilitation Therapy, Ng Teng Fong General Hospital, Osteoporotic Fractures, Exercise Programme

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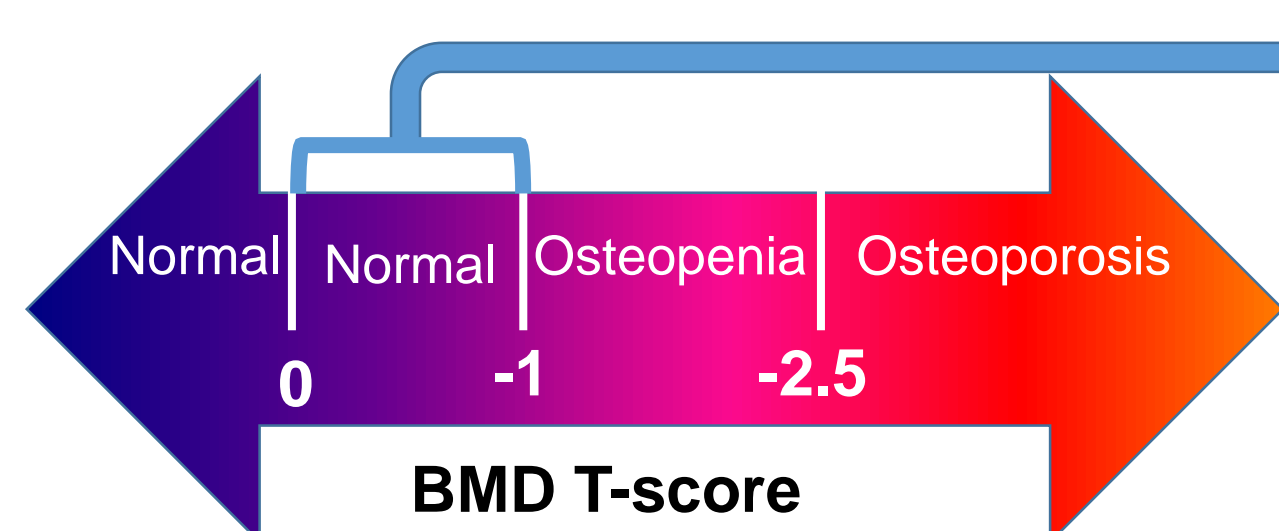
A NEW PHYSIOTHERAPY SERVICE IN PRIMARY PREVENTION OF OSTEOPOROTIC FRACTURES: BRIDGING THE GAP TO EXCELLENT CARE

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PHYSIOTHERAPY, REHABILITATION DEPARTMENT, NG TENG FONG GENERAL HOSPITAL

- SAFETY
- PRODUCTIVITY
- PATIENT EXPERIENCE
- QUALITY
- VALUE

Define Problem/ Set Aim

Primary prevention service, particularly guided physical exercise, has been widely recommended¹ to prevent the terrible consequences associated with osteoporotic fractures and the high healthcare-related expenditure.



Each standard deviation decrease in BMD = 1.5 times increased fracture risk. Each standard deviation decrease in hip BMD = 2.6 times higher risk of hip fractures.²

Prior to April 2018, patients with low and very low bone mineral density (BMD), and therefore at significantly higher risk of osteoporotic fractures, lacked standardized care in their non-pharmacological management. These are otherwise healthy older adults living in the community, and they often exceed the functional ceiling to benefit from general nursing education and existing ad-hoc outpatient physiotherapy services. Moreover, the ad-hoc services provided non-standardised care.

Our aim is to start a formalised consolidated Osteoporosis Physiotherapy exercise programme in 1 month by preventing falls with improved function, and slowing down bone mineral density loss in these older adults with osteopenia and osteoporosis.

References

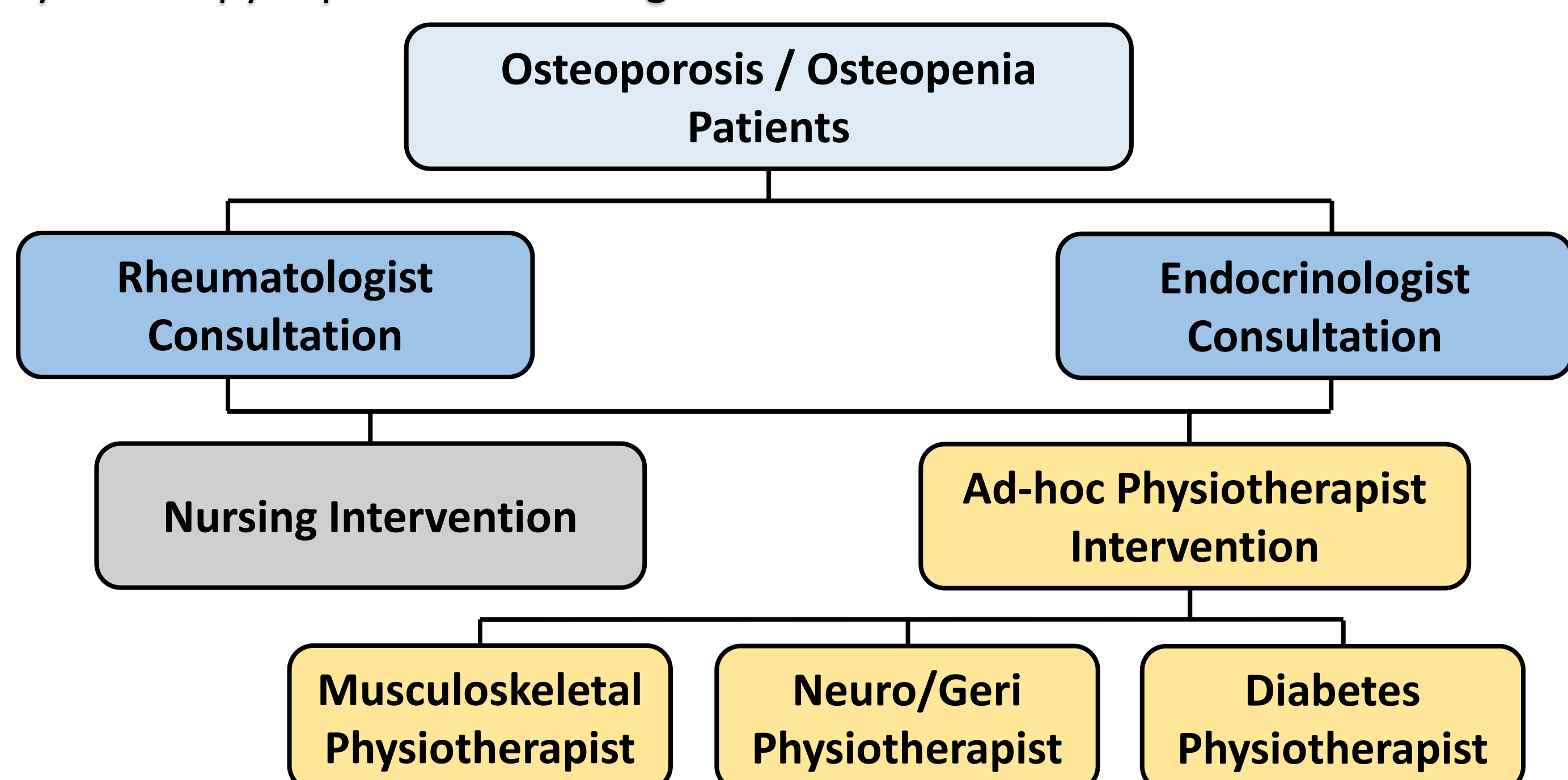
1. Body JJ, Bergmann P, Boonen S, et al. Non-pharmacological management of Osteoporosis. 2011. *Osteoporosis International*, 22:2769-2788.
2. World Health Organisation. WHO Scientific Group on the assessment of Osteoporosis at primary health care level. 2007. Available at <http://www.who.int/chp/topics/Osteoporosis.pdf?ua=1>. Accessed April 2018.

Establish Measures

Patients were receiving general education from nurses. Occasionally, some were referred to either Musculoskeletal, Neuro/Geri or Diabetes Physiotherapy on an ad-hoc basis. There were no standardized services for this group of patients.

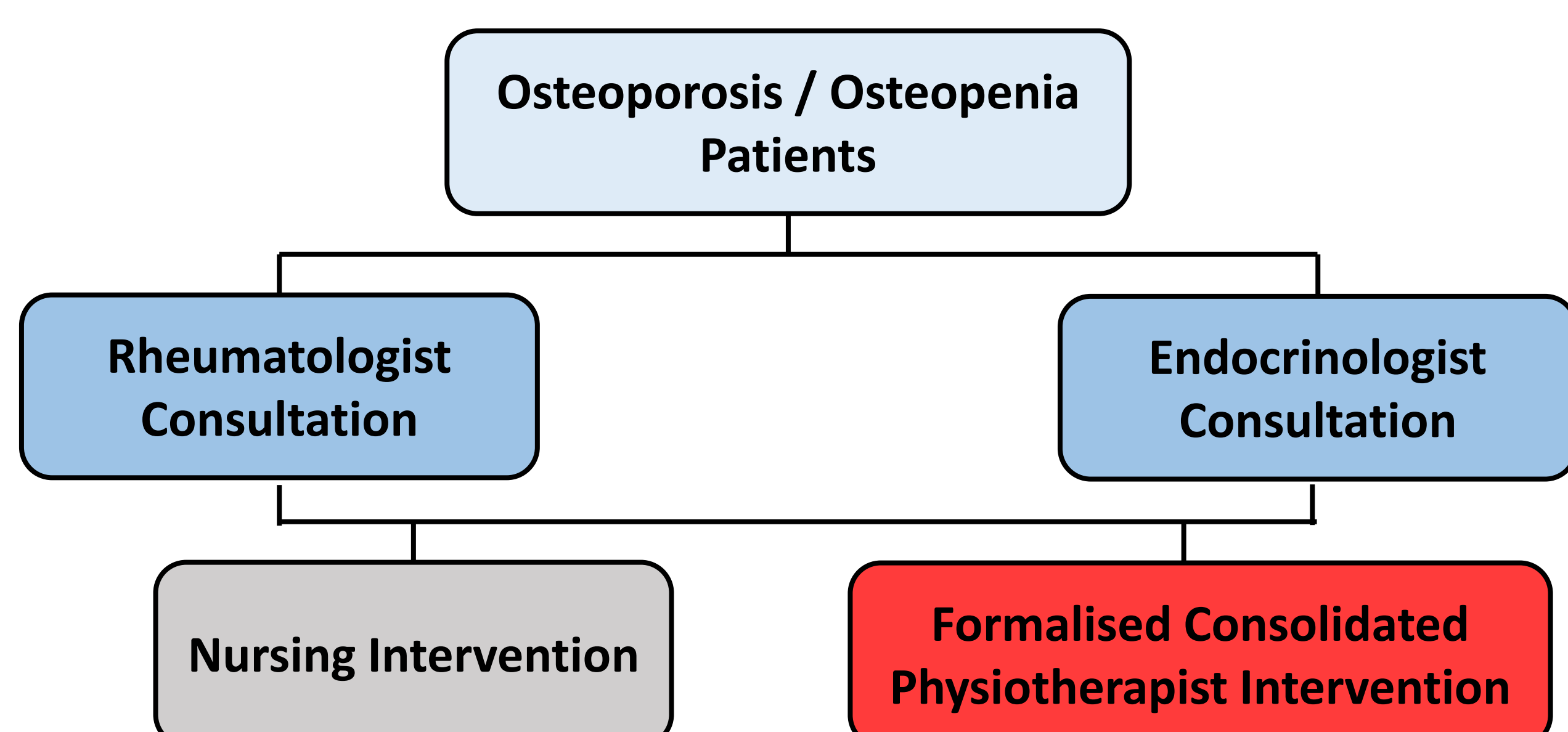
Analyse Problem

There is a lack of consolidated standardized primary prevention service which incorporates individualized assessment and intervention. There is also a lack of physiotherapy expertise in running this service.



Select Changes

The probable solution is to consolidate all the Ad-hoc Physiotherapy services into a formalised Osteoporosis Physiotherapy exercise programme.



Test & Implement Changes

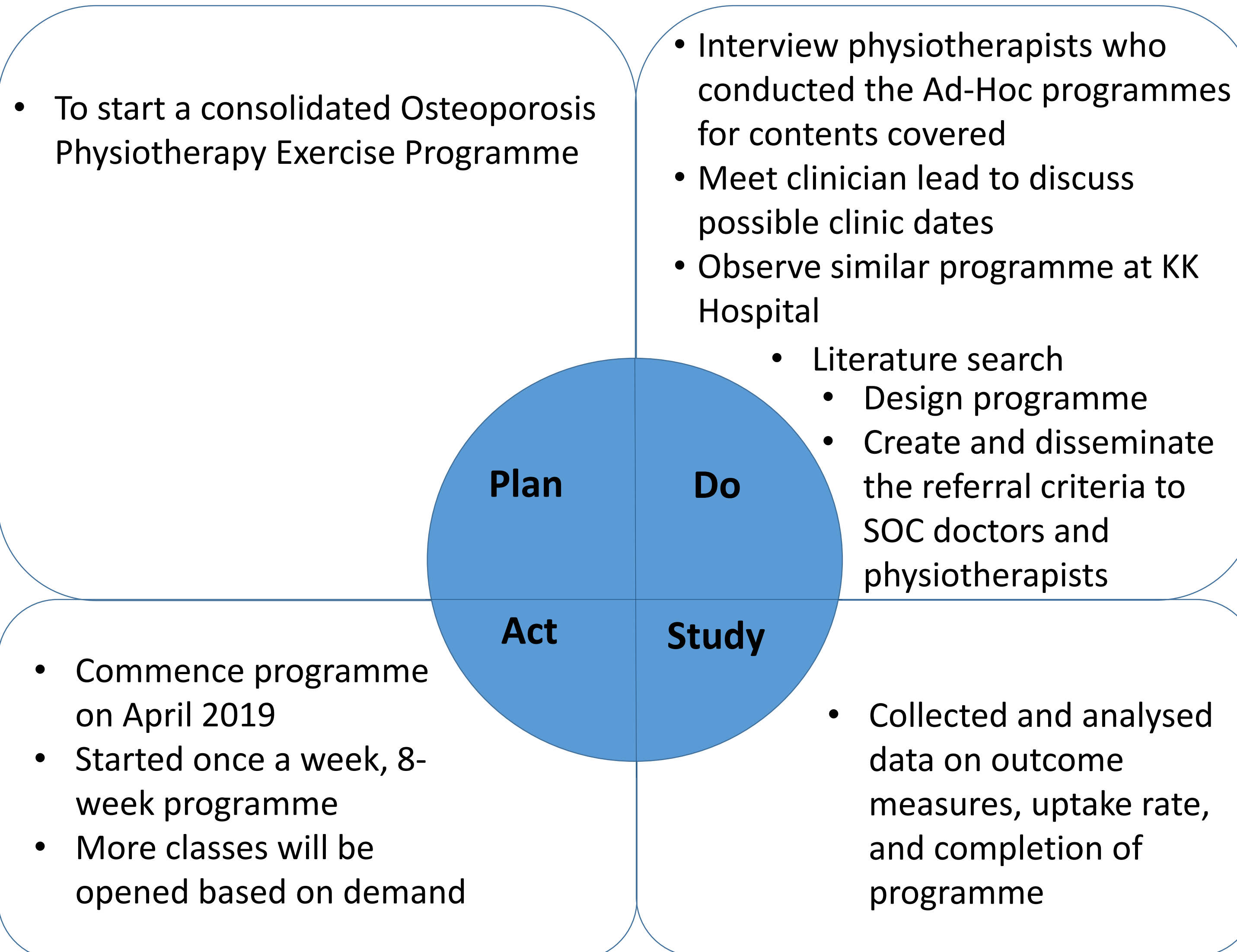


Figure 1. The PDSA shows the steps in developing this new service

As of 30 June 2019, 43 patients have been successfully enrolled in our programme, of which 27 has completed the programme.

A quarterly email update to the stakeholders (doctors, nurses, and physiotherapists) has been helpful in keeping everyone in the loop and on the same page.

Osteoporosis Physiotherapy Exercise Programme

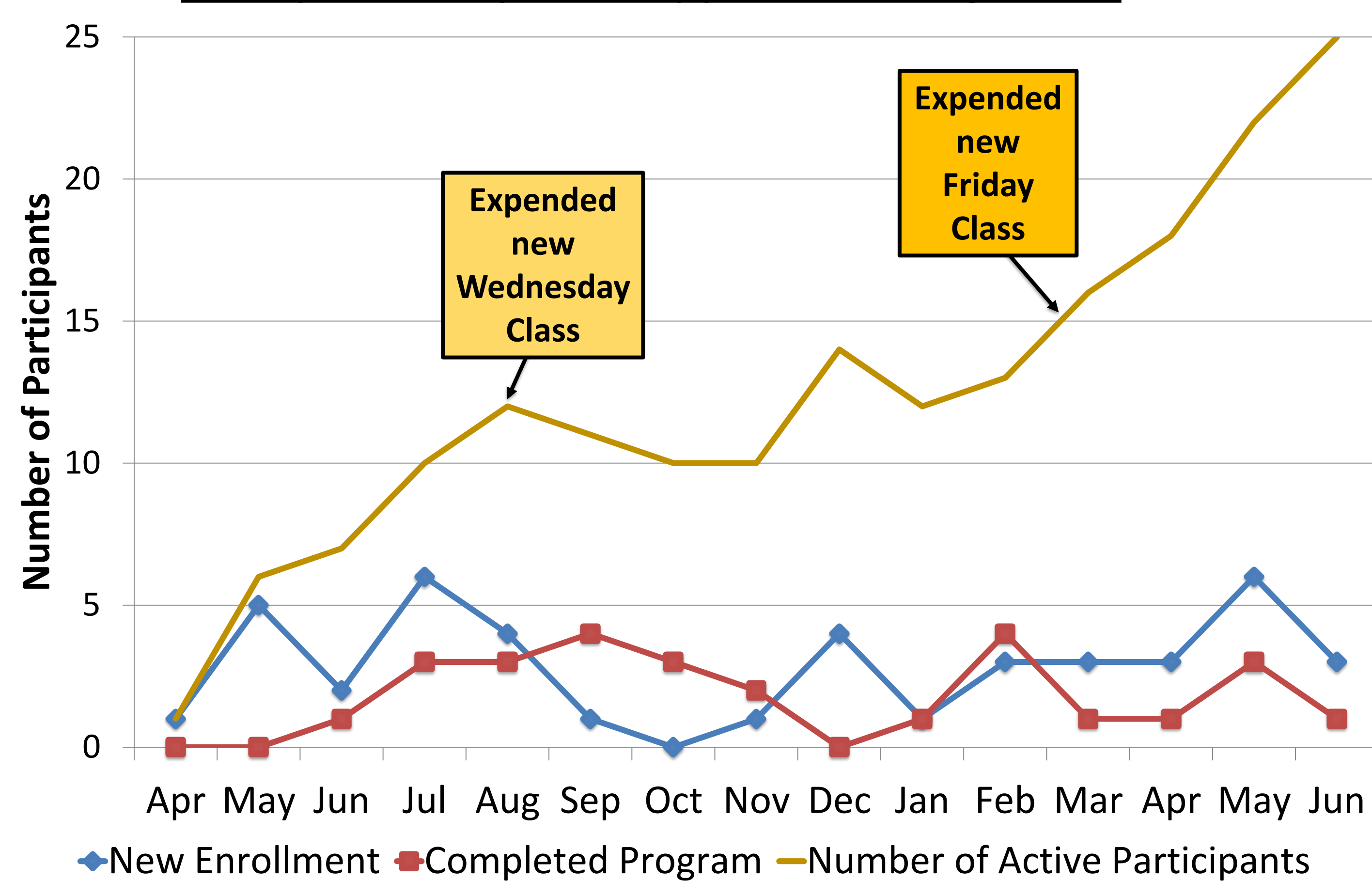


Figure 2. The uptake and completion numbers by month from Apr 2018 till Jun 2019

Spread changes/ Learning Points

Programme was communicated to referring doctors and physiotherapists. Quarterly updates were provided to keep everyone posted on the process and clinical outcomes.

Learning Point

We should consistently review the existing physiotherapy services and demand/needs of our patients. Consolidating a formalised group exercise programme had better catered to the needs of our patients.

