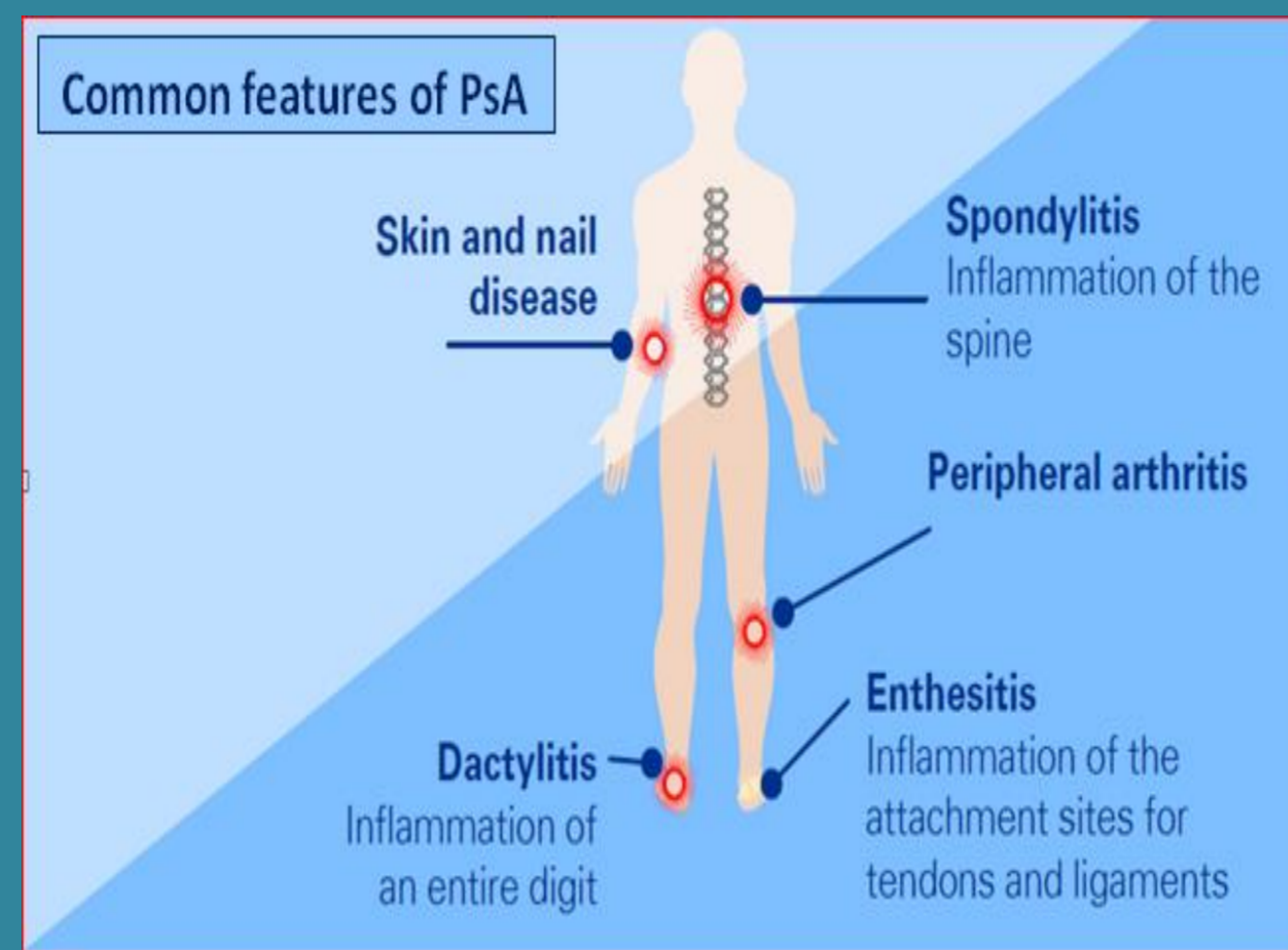


Implementing tablet computers to improve outcomes in Psoriatic Arthritis Clinics

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Background

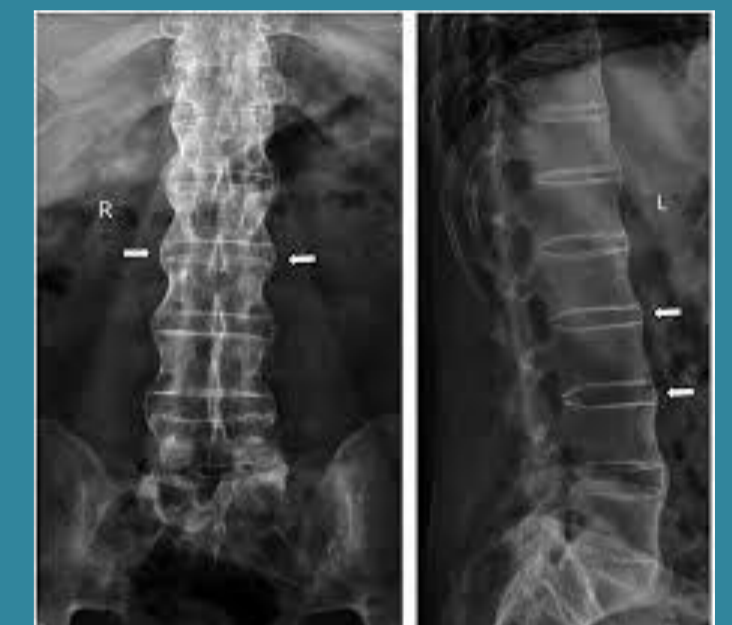
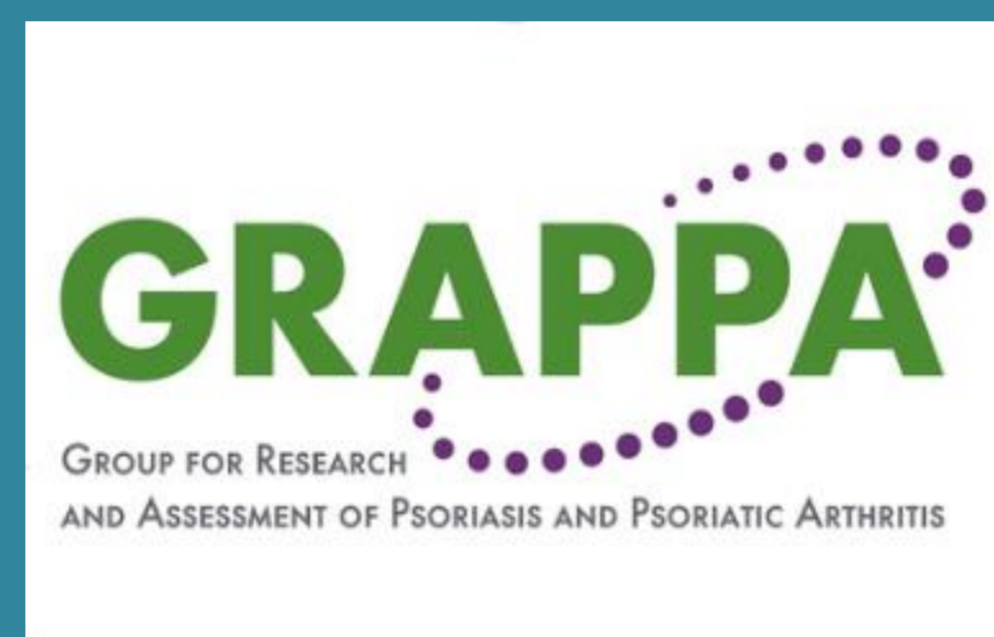
Psoriatic disease is a complex condition with profound physical and psychosocial effects. Psoriasis affects 2% of the population and 30% of patients with psoriasis could develop Psoriatic Arthritis (PsA) which requires early detection and treatment to prevent joint damage and functional disability. It is also associated with multiple physical co-morbidities and mental health issues as well as high rates of unemployment. Acknowledging the advances in our current understanding, the PsA core domain set was updated by the Group for Research and Assessment of Psoriasis and Psoriatic Arthritis (GRAPPA) in 2016 and this now includes 8 different aspects.



What were the issues

A 'Treat-to-Target' approach involving the multiple domains of PsA improves outcomes but can be difficult to do in general rheumatology clinics. We were able to confirm this through a retrospective audit and a dedicated PsA clinic was set up at Christchurch Hospital in November 2017 to facilitate comprehensive assessments of the disease.

It has also been shown that both patient outcomes and patient satisfaction improve when Dermatologists and Rheumatologists work collaboratively. However, the use of multiple paper forms was complex for the patients and also inconvenient for the clinicians because it involved lengthy calculations.



Our HEE QI Project

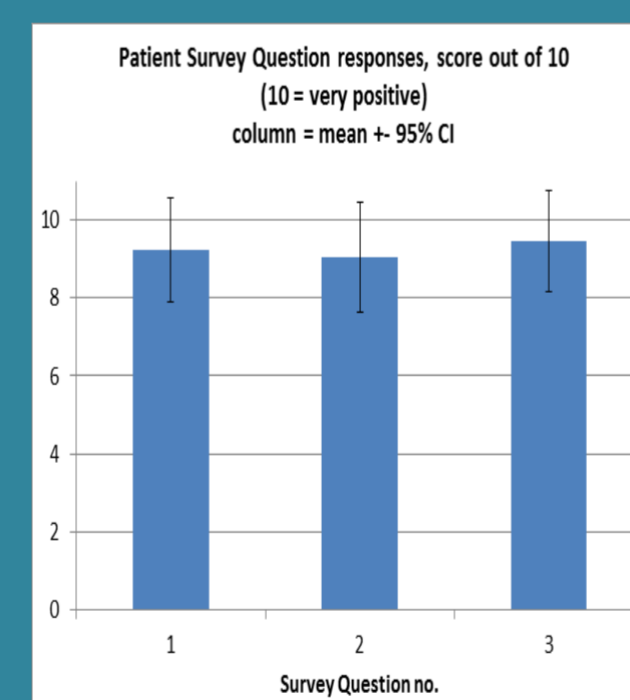
Our plan was to achieve completion of the internationally recommended PsA core dataset in a timely, secure and efficient manner with little or no paper and with all the calculations automated. This required development of a system for patients to use hand-held tablet computers to record the 'patient-reported-outcome-measures' through the GRAPPA app and for these results to be stored in a secure online database along with the clinician's assessments. The combined data would immediately notify whether the multi-domain target had been achieved and the treatment modified if appropriate. We identified the patients for our pilot project and made necessary changes to clinic templates to facilitate this, including a combined Rheumatology and Dermatology clinic every 3 months for patients with both severe joint and skin diseases.



Audit cycle confirming improvement

First, we audited the documentation of the assessments of the core domains of the psoriatic disease in the general Rheumatology clinics and found that compliance was only 27.4% when the ideal would be 100%. There was a wide variation for the different domains but for some the compliance was 0%. If a domain is not being properly assessed then it may not be taken into account when deciding about treatment. We repeated the audit following the implementation of the dedicated clinics and the hand held computers. We found a significant improvement in each of the domains and the overall compliance went up to 97.9%.

	Audit	Re-Audit
Total Number in Study	25	29
Compliance		
Is there documented evidence of a joint count being performed?	84.0%	100.0%
If yes, then was it a 66/68 count for swollen and tender joints?	4.7%	100.0%
Is there documented evidence of dactylitis being assessed?	8.0%	100.0%
Is there documented evidence of enthesitis being assessed?	4.0%	100.0%
Is there documented evidence of assessment of spinal involvement?	36.0%	100.0%
Is there documented evidence of skin involvement?	60.0%	100.0%
Any documented evidence of assessment of nail involvement?	4.0%	93.1%
Is there any documented evidence of assessment of fatigue?	8.0%	96.6%
Is there documented evidence of assessment of severity of pain (VAS)?	60.0%	100.0%
Is there any documented evidence of patient's global assessment?	68.0%	96.6%
Is there any documented evidence of assessment of physical function?	0.0%	96.6%
Any documented evidence of assessment of health-related quality of life?	0.0%	93.1%
Any documented evidence of assessment of systemic inflammation (including blood inflammatory markers)?	72.0%	96.6%
Overall compliance	27.4%	97.9%



Patient Satisfaction Surveys

We conducted a baseline survey by asking patients for their opinion regarding:

- 1) the setting up of the dedicated PsA service
- 2) the combined dermatology/rheumatology clinics
- 3) the use of the 'iPad based assessments'

We asked them to score each of these on a scale of 0 to 10, with 0 being 'very negative' and 10 being 'very positive'. The survey findings were excellent with mean scores of 9.5, 9.0 and 9.5 respectively for the three items. We are now doing a repeat survey after implementing the service and the results so far have also been very good with an average score of 9.2.

Challenges, Outcomes and Lessons Learnt

It took us almost 2 years to set up the PsA clinics and then successfully implement the use of the hand-held tablet computers to facilitate the multi-domain assessments. There have been challenges along the way. The need for the service was questioned at one point, but we have been able to produce evidence of benefits to patients. We are still working with our IT department to develop the electronic forms that will allow us to store the collected information in a secure manner on the Trust database. We also need to think about the likely implications of the forthcoming reorganisation of the clinical services within the county and how that might affect us in the future. Nevertheless, at this point we would like to think of this as a potential opportunity and be ready to adapt depending upon the circumstances.

The three most important tips that we would like to share with any other group wishing to take up such an initiative are:

- Select your team members carefully
- Try your best to raise awareness about the need for the service and get all stakeholders on board
- Never give up – perseverance is the key to success!!

Acknowledgements:

Healthcare Quality Quest (HQQ)
Group for Research and Assessment of Psoriasis and Psoriatic Arthritis (GRAPPA)
Our colleagues in Rheumatology and Dermatology at Christchurch Hospital and all the members of our management team

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