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AB1180

THE EVOLUTION OF AN FLS IN SEARCH OF EXCELLENCE: THE EXPERIENCE OF GRAN CANARIA.

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Background: The implementation of an FLS in the Spanish public health system is not an easy task since there are no official plans for the incorporation of personnel dedicated to the unit

Objectives: To expose the consolidation and improvement of an FLS after its implementation as well as the problems that have arisen over time.

Methods: The health program for secondary fracture prevention was implemented in 2012. Initially worked with the same staff assigned to the Rheumatology service, since 2016 we have a part-time support nurse. Patients are identified from the emergency registry and, more recently, from patients admitted for hip fracture and treated in a monographic osteoporosis clinic. The baseline visit consists of consultation with the nurse, DXA and bone metabolism analytics. Falling patients are referred to a fall prevention school. Most patients are referred to their primary care physician to start a treatment.

Results: Of the 2,416 patients attended the baseline visit, 30% were forearm fractures, 27% hip, 20% humerus, 10% spine and 11% other fractures. In comparison to 2012, in 2019 the monthly average of patients has doubled, increased the number of hip and spine fractures, and increased the percentage of captured patients (Table). In spite of consolidating the unit, getting a support nurse for the admitted patients and establishing a solid alliance with primary care, it is pending the involvement of Primary Care Nurses and start first prescription at the hospital.

Table. Comparison of the first year with the last year of implementation of our FLS.

	2012	2019
Mean monthly number of fractures, N	22	42
Type of fracture: forearm/hip/spine, %	37/20/6	28/40/11
Captured patients of eligible, %	57	77
Delay in weeks until first visit to FLS, median	14	12
Patient origin: emergency list/inpatient/outpatient, %	100/0/0	59/31/9
DXA performed, %	100	61
Referral to fall prevention school, %	0	26
Criteria to start a treatment, %	67	90*
Referral to the osteoporosis clinic, %	37	7

*We apply the 2019 recommendations of the Spanish Society of Rheumatology

Conclusion: We present the achievements made by our FLS along 8 years and the difficulties within the Spanish public health system.

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AB1181

SHOULD A COMBINED RHEUMATOLOGY-PULMONOLOGY INTERSTITIAL LUNG DISEASE SERVICE BE CONFINED TO TERTIARY CENTRES - A SERVICE EVALUATION

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Background: Interstitial lung disease is a well described extra-articular manifestation in a range of rheumatic diseases. It carries significant morbidity and mortality. Management of rheumatic diseases associated ILD (r-ILD) requires expertise as the needs of such patients are complex and treatment options

limited. Historically, such complex ILD has been managed in tertiary referral centres.

Objectives: We set up a combined service incorporating both rheumatology and respiratory domains in a district general hospital (DGH) to help patients avoid long journeys and improve their experience whilst focusing on an integrated care pathway. We evaluated the outcomes of the first set of patients managed in this proof-of-concept service model.

Methods: Referrals were accepted from any hospital specialist involved in the management r-ILD. They were triaged by lead ILD pulmonologist to monthly ILD MDT comprising a rheumatologist, respiratory physician, a radiologist and ILD specialist nurse. Appropriate patients were booked into combined clinic, run by the respective rheumatology and chest specialists with ILD interest, attracting a multi-specialty tariff. All the data was recorded electronically with full access to demographics, disease parameters, investigations and drug management.

Results: 89 patients were included in this proof-of-concept. Mean age was 66.1 yrs (19-90 yrs) and 44% (n=39) were male. 35 (40%) had RA, 34 (39%) had CTD, eight (10%) had sarcoidosis, five had IPAF and seven others. Most predominant HRCT pattern was NSIP (n=53,60%) followed by UIP (n=23, 21%), sarcoid (n=10, 12%) and miscellaneous (LIP and mixed). Mean FVC was 2.64 L/min (1.93-4.13) with DLCOc of 52.7% (28.9-90.1%) predicted. Only two patients had all antibodies negative whilst 87 had at least one antibody positive with ANA being the most common (n=28).

Most (83%) patients were treated with immunomodulators including nine with rituximab. 39 (44.3%) patients had significant improvement in clinical, imaging and pulmonary parameters with DLCOc improving to 56.57% and FVC to 2.70 L/min. There were similar improvements in six minute walk test. 17 patients died and 20 patients required long term oxygen therapy.

Conclusion: This proof-of-concept real world study confirms the utility of a combined specialist service in a district general hospital. Nearly half of this complex and resource intensive patient cohort had good clinical outcomes and derived benefit from the expertise in one room. Feedback from both patients and referrers was unanimously positive. No patient required tertiary centre referral and all could be managed adequately in the clinical setting.

Our report confirms that r-ILD can be managed in a DGH setting with a streamlined service offering clear benefits to patients. We would argue that r-ILD service, congruent to satellite pulmonary hypertension clinics in secondary care with hub-and-spoke model liaison with tertiary centre, can be established on similar principles and could help over-stretched tertiary care with repatriation of services whilst helping develop local expertise in the management of chronic ILD.

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AB1182

OPTICAL COHERENCE TOMOGRAPHY FOR HYDROXYCHLOROQUINE EYE MONITORING - SHOULD WE WORRY?

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Background: Recent data have highlighted that hydroxychloroquine (HCQ) retinopathy is much more common than previously reported. The overall prevalence appears to be around 7.5% and depending on dose and duration of therapy can increase to 20-50 % after 20 years of therapy. Royal College of Ophthalmology UK recommend that all patients planning to take hydroxychloroquine long term have a baseline examination in a hospital eye department with a colour retinal photograph and spectral domain optical coherence tomography (SD-OCT) scans of the macula. After five years, annual screening is required with 10-2 Humphrey visual field testing, followed by pupillary dilation and imaging with both SD-OCT and widefield fundus autofluorescence imaging (FAF).

Objectives: Our aim was to review the early findings of the screening program for all rheumatology patients prescribed HCQ at our university hospital.

Methods: A business case was approved to set up eye monitoring in accordance with above guidelines. All patients with rheumatic diseases prescribed HCQ were identified through departmental database. They were invited for ophthalmological

examination and those with drug exposure >5 yrs were prioritised. An MDT pathway was established to manage anyone with signs of HCQ toxicity.

Results: 2,132 patients are prescribed HCQ in our county with population of 669,000. 997 patients fell under our unit's remit. 136 patients (82% women) have been screened with mean age of 58 yrs (24-84y). 65 (48%) have RA and remaining with connective tissue diseases. Median disease duration is 10 yr (0.75-30 yrs) and median drug exposure is 10 yr (0.4-27yr). Three doses of HCQ are prescribed: 200mg daily (53%), 300mg daily (13%) and 400mg daily (34%). Ten (7.3%) patients were found to have abnormal results. Three were consistent with HCQ toxicity pattern and one with likely toxicity. Two of them had already developed severe sight loss. HCQ was discontinued in all these cases. Six had other incidental anomalies requiring further input.

Conclusion: Hydroxychloroquine is used increasingly in the treatment of autoimmune diseases with emerging role in oncology. It has a favourable safety and tolerability profile with survival benefit demonstrated in SLE. In the UK, its adoption has been particularly high owing to the requirement of trialling two DMARDs prior to being eligible for biologic therapy in RA and PsA. In the absence of modern retinal imaging techniques, HCQ toxicity was perhaps underestimated and hence older guidelines did not emphasise strict monitoring practice. Our preliminary data, in line with published evidence, represents a greater public health problem than previously estimated. It is clear that implementing the new guidelines not only recognises hitherto undiagnosed drug toxicity but also identifies incidental significant eye pathology which puts pressure on healthcare resources and needs robust service planning. Rheumatologists need to be aware of the potential impact requiring informed discussion with patients and perhaps a fundamental shift in prescribing behaviour to avoid this rapidly developing health concern.

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AB1183 TERIPARATIDE SWITCH TO BIOSIMILAR - IS IT COST EFFECTIVE?

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Background: Teriparatide is an effective treatment option for osteoporosis however NICE restricts its use to patients with high disease burden. This was based on cost effectiveness evaluation of the originator (Forsteo®) and would be different for recently introduced generic preparation.

Objectives: We wished to evaluate the current prescribing behaviour prior to a potential switch to generic version and associated cost savings.

Methods: All patients prescribed Teriparatide since the commencement of specialist osteoporosis service in Aug 2014 at our University teaching hospital covering 350,000 population were included. Data was extracted from electronic database with full access to demographics, population characteristics, disease parameters and medication history.

Results: 113 patients were prescribed Teriparatide over five years. Mean age of participants was 76 yrs (53-96). They had on average three comorbidities (0-8) with most common being hypertension (n=44, 38.9%) and inflammatory arthritis (n=21, 18.5%). Sixteen (14.1%) individuals had concurrent corticosteroids. Median number of fractures prior to therapy were four (0-12). Prior treatments included oral therapy (n= 90,79.6%), IV zoledronate (n=22, 19.4%) and denosumab (n=19, 16.8%). 66 (58.4%) of patients only had one prior bone active medication. Mean duration of prior therapy was 62.4 months (9-192 months). 17 (15.0%) patients had chronic kidney disease with lowest eGFR of 38.41 (36.2%) had Vit D level between 40-75 nmol/L. Median T score was -3.8 (-2.1 - -6.0) which improved to -3.4 (-2.9 - -3.9) after two years.

Conclusion: Our real-world study shows that teriparatide is used predominantly in complex, multi-morbid older individuals with several prior fractures. Despite that teriparatide remains effective for a wide range of individuals including those with inflammatory arthritis and/or concurrent steroid use. Neither moderate CKD nor mild Vit D insufficiency seems to impact its efficacy.

This is in line with recent meta-analysis of real life teriparatide use in complex osteoporosis with multimorbidity. Our study should enhance clinicians' confidence in its prescribing. It's notable that the use is higher than current estimates based on NICE cost effectiveness analysis for eligibility of teriparatide. Instead of annual predicted use of 4.8/100,000 population, it was prescribed to 6.4/100,000. This could potentially have a cost impact however the introduction of a generic version would mitigate against it. We calculated our savings to be over £125,000 if all patients were switched. These savings at national level would hopefully improve access to a wider patient cohort and perhaps allow earlier use in the treatment paradigm.

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AB1184 BURDEN OF DISEASE AND DIRECT HEALTH CARE COSTS FOR PATIENTS WITH SYSTEMIC LUPUS ERYTHEMATOSUS IN WESTERN AUSTRALIA

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Background: Systemic Lupus Erythematosus (SLE) is a chronic multiorgan disease with an unpredictable disease course, which requires monitoring for disease activity, treatment efficacy and comorbidity. Data on the healthcare utilization and cost of SLE, especially from Australia are scarce.

Objectives: To determine the healthcare utilisation and estimated costs of inpatient admissions (IP), emergency (ED) and outpatient (OPD) hospital visits and investigations for SLE patients in Western Australia (WA).

Methods: This is a longitudinal cohort study of SLE patients seen at a metropolitan public hospital, with ≥6 months of follow-up (n=179, 95% female; baseline age 36.2 ± 15.2 years). Electronic medical records provided data on OPD, ED and IP visits, and investigations conducted at public hospitals from January 2000 - December 2019. Direct healthcare costs were estimated from public hospital expenditure aggregates in FY2018/19.

Results: During a median observation period of 11.0 years (IQR 7.4, 13.5), SLE patients required 13,320 OPD visits for a median of 5.3 (IQR 3.0, 9.3) appointments per annum. The majority of OPD visits were with Rheumatology (n=1,986, 14.9%), Immunology (n=1,527, 11.5%), and allied health services (n=1,952, 14.7%), followed by Ophthalmology (n=1,385, 10.4%), maternal & fetal health (n=873, 6.6%) and Renal medicine (n=844, 6.3%). In total 143 patients (79.9%) attended ED on average of 3 times (IQR 2, 7; ED visit rate 44.0 (95%CI 41.0, 47.0) per 100 person years. Overall, 125 patients (69.8%) were hospitalised at average 3 times (IQR 2, 6), with a mean LOS of 5 days (IQR 3, 12) for an IP rate of 37.6 per 100 patient years (95%CI 34.8, 40.5). Only 12.8% of patients did not attend ED or IP in the public health care system. A total of 367,067 laboratory investigations were performed (median nr. of tests per patient 205 (±290) per year) across fields of haematology/biochemistry (89%), immunology (5%), microbiology (4.5%) and histopathology (<1%). Minimum estimates for direct health care cost during the study period were 25.4 million AUD (IP 11m, OPD 6.3m, ED 0.9m and investigations 9.1m) for a crude annual cost of 14,088 AUD per patient.

Conclusion: SLE patients have extensive healthcare utilization across a range of outpatient and inpatient services. The main direct costs for this multidisciplinary health care provision are for disease monitoring and in-hospital treatment. Based on these conservative cost estimates to which medication cost need to be added, total costs for SLE care in WA are projected to be significantly higher than reported from Europe.