Conclusions: Rheumatology nurse phone follow-up program provided a timely and convenient platform to increase patient understanding of disease and treatment, improve their self-efficacy and enhance safety and concordance with DMARDs treatment.
Disclosure of Interest: None declared
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THU0769-HPR SCOPE FOR BIOLOGIC PRESCRIBING COST SAVING INITIATIVES WITHIN THE RHEUMATOLOGY DEPARTMENT

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Background: The rheumatology department at Stepping Hill Hospital prescribes biologic treatment for 400 inflammatory arthritis patients via external Homecare services. Significant resultant drug waste in the event of drug discontinuation is anticipated.[1] The initiation of a pro-active telephone call at three months, to capture and act upon primary inefficacy and non-tolerance has been considered as a potential alternative method for waste reduction.
Objectives: Establish the baseline level of biologic drug waste (via Homecare) following cessation of biologic treatment. Review whether a proactive phone call (and subsequent limitation of supply if appropriate) prior to the three month review at the start of biologic therapy can help reduce biologic waste. Establish whether there is scope to implement other initiatives to reduce waste in the department.
Methods: Patients who had stopped or switched biologic treatments delivered through Homecare providers were identified using the trust's biologic database and clinic records. Information on biologic delivery quantities and schedule were provided by Homecare companies. Data was analysed used Microsoft Excel®; number (and cost in accordance with pharmacy tariffs) of doses "wasted" was calculated by referring the date of treatment cessation with the date and quantity of last biologics deliveries and patient stock levels as reported by the homecare company. Doses obtained free of charge were excluded. Baseline data was captured over a six month period. Four costs were calculated; (1) Total waste. (2) Wasted supply exceeding two months to assess whether an increase in delivery frequency to two monthly could reduce waste. (3) Waste from unopened deliveries to establish whether waste could be reduced by improved patient education around refusing deliveries in the event of treatment failure or intolerance. (4) Waste from the second biologic prescription issued as a result of stopping biologic at the three month review to assess viability of the proactive phone. A proactive patient phone call was then initiated and waste data captured for a three month period following this intervention.
Results: 27 patients stopped treatment during the 6 months baseline data collection. 23 patients had drug waste totalling £ 32,140.80. The total value of wasted stock exceeding two months supply was £ 5,414.36. Three patients accepted deliveries for further supply and stopped treatment before opening final deliveries, creating a waste total of £ 5,509.09. Four patients stopped treatment at their three month review, £ 4,572.22 of additional biologic was supplied and then wasted as a result. Following the pro-active phone call intervention, 21 patients were contacted before their second supply was due and supply subsequently limited for 8 patients, four of whom stopped treatment at their next consultant review. Limiting supply in the four patients saved £ 6,682.
Conclusions: Initiating a proactive phone call at three months following biologic initiation can reduce drug waste. Other initiatives such as patient education to refuse deliveries and increasing delivery frequency also appear viable waste reduction initiatives.
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THU0770-HPR COST SAVINGS BY FAVOURING INFLIXIMAB BIOSIMILARS IN THE EASTERN REGION OF AUSTRIA

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Objectives: Since April 2015, the availability of Infliximab biosimilars offered a new potential for cost savings in limited financial resources of the healthcare system. In Austria, there is currently no open tendering for drugs dispensed at charge of sickness funds and biosimilars take a long time to gain an appreciable market share overall. A contract made between the public hospital operator and the regionale sickness fund of the Eastern Austrian county Burgenland (BGKK) offered a new opportunity regarding the interface problems due to the dually financed (inpatient and outpatient care is separately financed in Austria) health system. Only outpatient care is covered by regional sickness funds.
Methods: With reference to the NOR-SWITCH study (1), confirming the interchangeability of the branded Infiximab and infliximab biosimilar, and the large price advantage of the latter, the BGKK agreed as an exception in the Austrian health system on direct reimbursement of infliximab to the public hospital operator (inpatient care).
The cost savings were calculated based on the monthly invoices of the hospitals. Instead of € 477.19 for 100 mg of branded infliximab, the price for biosimilar infliximab does not exceed € 300.–. The 23 patients on biosimilar were infused with 9,400 mg infliximab overall.
Results: After signing the agreement in December 2016, 23 consecutive patients, representing 82% of all patients on infliximab in Eastern Austrian county Burgenland, switched to or were incident users of an infliximab biosimilar, the 18% have not yet switched due to remaining stocks of branded infliximab or were adolescents where switching is not forced because of lacking data. According to the individual dosing and a price benefit of about 37%, monthly cost savings of about € 16,650.00 could be generated.
Conclusions: Despite availability of cost-effective infliximab biosimilars in Austria, the drugs did not gain significant market share, in contrast to the Scandinavian healthcare systems, $<$4% vs. $>$90% in the first half year of 2016. Further research is needed including clinical data to strengthen the results of this pilot study.
References:
[1] Jørgensen, K. et al. Biosimilar infliximab is not inferior to originator infliximab: Results from the 52-week randomized NOR-SWITCH trial. United European Gastroenterology Week 2016; LB15.
Disclosure of Interest: None declared
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THU0771-HPR INCORPORATING SENIOR PHARMACIST INPUT IN TERIPARATIDE PATHWAY ENSURES ADHERENCE TO PRESCRIBING GUIDANCE - AUDIT/QUALITY IMPROVEMENT RESULTS FROM A DISTRICT RHEUMATOLOGY UNIT

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Background: Teriparatide is licensed for upto two years to treat severe osteoporosis. It is the most expensive osteoporosis treatment available (around £ 3500 per year). Hence a locally adapted national NICE guidance is used for prescribing in our department, but the previous level adherence was uncertain. In 2011, a directory of services was agreed for our metabolic bone clinic. At the time a Rheumatology senior pharmacist review with the prescribing senior clinician was agreed on our teriparatide treatment pathway, including pre-treatment DXA, and a specified bone profile screen before treatment and for repeat prescribing at specified intervals. The agreement also incorporated access for our patients to senior pharmacist advice if needed via the department's secreterial team.
Objectives: Our objective was to assess the impact of the senior pharmacist input on our adherence to the agreed guidelines in our Teriparatide pathway, including assessing treatment completion and response.
Methods: Patients with osteoporosis who were started on Teriparatide between 2011–2015 were identified from pharmacy prescribing spreadsheets. A retrospective review of case notes of all patients were carried out. Data including age, gender, prior agents tried, pre-treatment bone profile, pre and post treatment DXA, and treatment completion were collected on a Microsoft Excel 2010 spreadsheet for processing and descriptive statistics.
Results: 33 patients who were started on teriparatide treatment between 2011–2015 were identified (29 female and 4 male). Mean age was 76.2 (range 63–92). All had pre-treatment DXA, and 32 (97%) were compliant with recommendations for initiation of teriparatide treatment with respect to DXA (one patient borderline). All 33 patients had a pre-treatment bone profile within acceptable limits before start of treatment (adjusted Calcium, Serum Parathyroid Hormone, Vitamin D level, e-gfr). 28 (84.8%) patients tried one agent before initiation of Teriparatide treatment and 5 (15.2%) patients tried 2 agents. 24 (72.7%) patients completed the full course of recommended treatment. 11 out of 24 patients who completed Teriparatide treatment have had post-treatment DXA. 3 out of 24 patients who completed Teriparatide treatment had a fragility fracture after treatment.
Conclusions: This audit confirms the benefit of incorporating Rheumatology senior pharmacist review in the pathway from the excellent compliance with guidelines in initiating and managing Teriparatide noted in the results. This is likely to have also contributed to the high completion rate of the treatment course. However, only 11 out of 24 had post treatment DXA, and this needs improvement by the next audit cycle, through input of senior clinicians who are in charge of requesting DXA. We would, therefore, recommend incorporating senior pharmacist input for review in teriparatide treatment pathways routinely.
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THU0772-HPR VARIATION IN RHEUMATOLOGY NURSING CARE IN THE NETHERLANDS: A SURVEY AMONG NURSES

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Background: EULAR recommendations for the role of nurse aim at guaranteeing a certain standard of care for people with rheumatic musculoskeletal diseases

(RMDs) and at optimising the use of nursing competencies [1]. In the Netherlands, these recommendations seem well implemented. There are specialised nurses (SNs); nurses trained at a secondary vocational or Bachelor level, followed by a one-year educational program in rheumatology, and nurse practitioners (NPs), trained on a Master Level. SNs provide information, education and (psychosocial) support, but also monitoring of disease, supervised by a rheumatologist. NPs are trained and legally authorised to provide integral medical (e.g. prescribing) and nursing care independently. Informal discussions among rheumatology nurses suggest a variation in roles, and tasks of SNs and NPs, and of care organisation in rheumatology practices.

Objectives: The objective of this study was to explore current roles and tasks of SNs and NPs, and care organisation in order to visualise potential variation.

Methods: A web-based questionnaire, based on literature [2] and existing task descriptions was disseminated among all members of the Dutch Nurses Association, unit Rheumatology (n=257). The questions were in closed-ended, multiple choice, likert-scales and open-ended format as appropriate. Data were analysed descriptively. Subgroup analyses were carried out for SNs and NPs.

Results: In total 84 nurses, 75 SNs and 9 NPs responded. Characteristics, roles and main tasks are presented in Table 1.The majority of the SNs, 96.4%, and 100% of the NPs work at the outpatient clinic, providing individual face-to-face consultations or telephone support.

Table 1

	SN (n=75)	NP (n=9)
Age, mean years (sd)	47.6 (9.5)	46.7 (10.2)
Female (%)	98.7	88.9
Appointed, mean hours/week (sd)	24.8 (6.0)	33.1 (4.1)
Days/week, median (IQR)	3 (3.4)	4 (4,4)
Role (%)		
SN	85.3	33.3
NP	0	55.6
Other (e.g.combination with research or infusion)	14.7	11.1
Tasks (% always/often)		
Information and education about disease	89.3	100
Information and education about treatment	90.7	88.9
Metrology	78.7	100
Joint examinations 57.3	100	
Make diagnosis new patients	1.3	22.2
Manage patients with RMDs	54.6	88.9
Administrate medication	45.4	22.2
Give intra-articular injections	1.3	22.2
Independent prescribing	2.7	77.8
Screen for comorbidities	29.3	44.4
Manage patients on biologic therapy	54.7	100
Provide psychosocial support	82.7	77.8
Refer to other health professionals	58.7	77.8
Monitor patients on DMARD	70.7	88.9
Self-management support	77.3	33.3
Time for consultations, median (IQR) minutes		
New patient (diagnosing)	27.5 (0,30)	42.5 (32.5, 45)
Newly diagnosed patients	45 (30,60)	30 (17.5, 60)
Follow-up patients	30 (20,30)	17.5 (15, 20)

Conclusions: Differences in roles, tasks and available time for consultations visualise variation in care organisation and in the content of rheumatology nursing care, also within the SN and NP group respectively. Further research on these differences is necessary but they show inequity of care for people with RMDs in the Netherlands and also suggests suboptimal use of nursing competencies.

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HPR measuring health (development and measurement properties of PROs, tests, devices) —

FRI0732-HPR THE PSS-QOL: DEVELOPMENT AND FIRST PSYCHOMETRIC TESTING OF A NEW PATIENT-REPORTED OUTCOME MEASURE FOR PSS PATIENTS

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Background: Patients with primary Sjögren Syndrome (PSS) are affected by glandular and extraglandular manifestations leading to physical and psychological impairment. To what extent these factors affect the health related quality of life (HRQL) of these patients is largely unexplored. Disease activity scores for PSS have been developed but there is no disease-specific HRQL questionnaire available so far.

Objectives: To develop a questionnaire for the assessment of HRQL in PSS.

Methods: In a previous qualitative study, concepts related to HRQL in PSS were identified by focus-group interviews with PSS patients. Based on these concepts, a questionnaire (PSS-QoL) was developed focusing on two main topics: physical (pain and dryness) and psychosocial dimension. The first draft of this questionnaire was evaluated by semi-structured interviews with PSS patients (n=6) and rheumatologists (n=4). Based on their feedback, a revised questionnaire was constructed and re-evaluated by the patients and physicians. Subsequently, psychometric testing of PSS-QoL was performed in 75 PSS patients of the outpatient clinic of the Medical University Graz. For testing of internal consistency Crohnbach's α was used. Convergent construct validity was tested by correlating the scores with the ESSPRI and the EQ-5D. Reliability was examined by asking patients who considered themselves to be in a stable disease to complete the questionnaire 1–2 weeks apart. In addition, an English version of PSS-QoL was was developed using a standard methodology for translation.

Results: Out of the 75 PSS patients, 91% were female, disease duration was 4.8±4.08 years and age of patients was 58.5±12.5 years.The internal consistency of the PSS-QoL showed a Crohnbach's α of 0.892 and we found a moderate correlation of the PSS-QoL with the ESSPRI ($Corr_{coeff}$=0.625) and the EQ-5D (EQ5D-pain/discomfort; $corr_{coeff}$=0.531). A second assessment was performed after 1–2 weeks in 21 patients with stable disease. The ICC for PSS-QoL was 0.958 (95% CI 0.926 to 0.981). In comparison, the ICC for EQ-5D in this population was 0.854 (95% CI 0.735 to 0.933). Subsequently, the final German version of PSS-QoL was translated forward and back into English by native speakers.

Conclusions: A questionnaire to assess the HRQL in PSS patients has been developed and tested for its psychometric properties. The PSS-QoL should allow for a better and more comprehensive assessment on patients' HRQL in PSS. Multicentre studies for further validation are needed.

Disclosure of Interest: None declared

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FRI0733-HPR THE EDUCATIONAL NEEDS OF PATIENTS WITH UNDIFFERENTIATED SPONDYLOARTHRITIS

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Background: The educational needs of people with undifferentiated spondyloarthritis (USpA) have not been well studied. The educational needs assessment tool (ENAT) has been translated into Swedish and validated in other rheumatic diseases but not USpA.[1]

Objectives: To validate the educational needs assessment tool (ENAT) in people with USpA and use it to study their educational needs.

Methods: A cross-sectional study recruiting a random sample of patients with USpA from a hospital register. USpA was diagnosed according to the International Classification of Disease, ICD-10 (M46.0, M46.1, M46.8, and M46.9).[1] The study was approved by the Regional Ethics Board and all included patients signed an informed consent. We used a postal survey to collect data on disease activity (BASDAI) and educational needs (Swedish version of the ENAT).[2] The data was then utilized to assess the construct validity, internal consistency, unidimensionality and response bias of the ENAT using Rash analysis. Given fit to the Rasch model, we transformed the ENAT ordinal scores into interval logit-based scores before deploying descriptive and inferential statistics. Total ENAT Score ranges between 0 (no needs) and 156 (the highest level of needs), and comprises seven subscales (pain 0–24, movement 0–20, feelings 0–16, disease 0–28, treatments 0–28, self-help 0–24 and support 0–16). Finally, we categorised the data by gender, age (median split) and disease activity (BASDAI split at 4) and assessed differences between patient subgroups using the student's t-test.

Results: Complete responses were derived from 77 patients (48 women), mean (SD) age 50 (12) years, disease duration was 16 (11) years, BASDAI 4.9 (1.9) and BASFI 3.1 (2.3). When used as a 7-subscale questionnaire, the ENAT satisfied the requirements of Rasch model (c^2=11.488; p=0.119) including strict unidimensionality.

Overall, the mean (SD) ENAT scores for patients with USpA was 86 (32). Women reported higher needs than men in the domains of pain, mean (SD) 13.1 (6.8) vs. 10.1 (6.0), p=0.05; movement mean (SD) 13.0 (5.5) vs. 9.9 (5.7), p=0.02 and self-help, mean (SD) 17.0 (5.8) vs. 14.1 (5.0), p=0.03). Higher disease activity (BASDAI >4) was associated with higher educational needs, mean (SD) 92.6 (31.9) vs. 73.7 (29.4), p=0.02. There was no significant difference in educational needs between age groups.

Conclusions: The Swedish ENAT has been validated in USpA thus enabling an accurate estimation of the educational needs of people with USpA in Sweden.