with RA have an increased risk of comorbidities e.g. interstitial lung (IL) disease (7.7% incidence⁽²⁾; up to 60% IL abnormalities in early RA⁽³⁾), depression (up to 200%⁽⁴⁾; 16.8%⁽⁵⁾), cardiovascular disease (40-70%⁽⁶⁾; 5-12.9%⁽⁷⁾) and diabetes (IR of 8.6 per 1000 person-years⁽⁸⁾; 20%⁽⁹⁾). Yet, there are few comprehensive recommendations on the management of RA-related comorbidities.

Objectives: This study aimed to identify models of good quality care for patients with RA and their associated comorbidities in Europe and understand how these practices can be widely implemented.

Methods: Existing published recommendations across Europe on good practice in RA care including screening/managing selected comorbidities were reviewed. Team members of 12 specialist centres across Europe were interviewed. The interventions identified were reviewed and prioritised to form a selection of considerations by a consensus process involving 18 experts including rheumatologists, a patient rep., a nurse and also RA comorbidity specialists: cardiologist, psychologist, pulmonologist and diabetologist.

Results: The interventions were prioritised for each patient profile:

- a. suspected RA:
  1. rapid access to care (online referral, triage, ultrasound-guided diagnosis)
  2. enhanced communication with primary care (hotline, education sessions)
  3. early arthritis clinic (timely clinical assessment and diagnosis)
- b. recently diagnosed:
  1. enabling self-management (self-monitoring and disease activity management support)
  2. early arthritis clinic
  3. comprehensive comorbidity assessment (standalone or in conjunction with RA appointment)
- c. established disease:
  1. dedicated comorbidity specialist
  2. integrating patient registries into daily clinical practice
  3. enabling self-management

Eleven other interventions were identified including task-shifting to non-physician healthcare professionals, tailored education to patients and family members, and developing care networks.

Conclusion: Despite limited European recommendations on management of RA comorbidities, a range of good practice care model interventions across Europe were identified which are non-complex, high-impact and meaningful. Next step will be to assess how these care models can be implemented in different healthcare systems for the benefit of patients with RA.

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THU0639

AUTOMATED CAPTURE AND HIGH UPTAKE RATES OF PATIENT REPORTED OUTCOME MEASURES IN ROUTINE RHEUMATOLOGY PRACTICE

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Background: Patient reported Outcome Measures (PROMs) are an integral part of value based healthcare and outcomes that matter to patients; however resource and time constraints are often barriers for routine collection in clinic.

Objectives: We piloted an automated, electronic collection of PROMs for patients attending an outpatient specialist rheumatology clinic.

Methods: All patients with a clinic appointment were sent an automated text message, one day before their scheduled doctor's appointment, with a hyperlink to fill in the Routine Assessment of Patient Index Data (RAPID3) [0-30, 30 being worst, calculated as the sum of physical function measured using the 10-item multidimensional health assessment questionnaire (mdHAQ), pain visual analogue scale (VAS), and patient global VAS questionnaire]. The text message was personalised with the attending physician's name and thumbnail photograph and the questionnaire was presented in the patient's preferred language (English or simplified Chinese) by detecting their phone configuration. RAPID3 responses flowed back to the electronic medical record and were available for the attending clinician to view during the clinic consult the next day. Patients who did not fill in the questionnaire within 6 hours were sent a reminder, and those still remaining were encouraged to fill it in the clinic waiting room. Hardcopy flyers were distributed to inform patients of the initiative and clinicians were encouraged to discuss the responses at the clinic visit. Patients were sent the survey only once during the study period. Weekly usage reports were sent to the clinicians (Figure 1).

Results: 4078 patients [mean (SD) age 55.8 (16.3) years, 67.9% female, 70.6% Chinese] were sent the text message invitation over 6 months, of which 64.4% responded. Diagnosis data from SNOMED codes were available for 2262 patients. The most common primary diagnoses were rheumatoid arthritis (653, 29.5%), Spondyloarthritis (SpA), including psoriatic arthritis (318, 14.4%) and lupus (310, 14%). Data on disease duration, clinical features and medications were not available for this study. The mean (SD) mdHAQ score (range 0-3, 3 being the worst) was 0.3 (0.5), mean (SD) pain-VAS (0-10, 10 being worst) was 2.4 (2.3), patient global was 2.6 (2.2) and RAPID3 was 6.1 (5.2). On multivariable logistic regression, age (OR = 0.38, 95% CI 0.32, 0.44 for the top tertile), gender (OR 1.22, 95% CI 1.06, 1.4 for females), race (OR = 0.79, 95% CI 0.64, 0.98 for Indian vs. Chinese race) and treating physician (OR 0.7, 95% CI 0.61, 0.8 for junior vs. senior doctor) were independent predictors of survey response, while primary rheumatic disease was not (Figure 2). Ten of 11 clinicians (from 13 surveyed) found the information from PROMs useful, and 8/11 supported expansion of the pilot project to include more PROMs. Lack of time was cited as the biggest challenge to implementing PROMs routinely.

Conclusion: Automated collection of PROMs in routine clinical care is feasible with high uptake rates and minimal clinician burden.

[1] Figure 1: Weekly usage reports

Figure 2. Predictors of Survey Response

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THU0640 EARLY RETIREMENT ATTRIBUTED TO RHEUMATOID ARTHRITIS AND ITS PREDICTORS IN PORTUGAL

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Background: Work disability is a common consequence of Rheumatoid Arthritis (RA) with economic implications for both the patient and society. Scarce information is available on work and disease-related factors associated with early retirement in Portugal.

Objectives: To evaluate the rate of early retirement due to RA. Secondary aim consists in the identification of its main predictors, both work and disease-related.

Methods: Retrospective cohort study involving two national rheumatology centers, including patients with RA according to the ACR/EULAR 2010 or the 1987 ACR Classification Criteria for RA. Patients retired prior to RA diagnosis, never-employed or with missing information on current work status were excluded. Type of work was independently classified as non-manual/manual/heavy manual by two authors based on patient's occupation with excellent inter-agreement (Cohen's kappa coefficient 0.91). Retirement due to RA versus retirement for other reasons were compared using T-test and Chi-2 test as adequate. Variables with $p < 0.05$ in univariate analysis and other potential predictors selected on clinical and epidemiological grounds were included in multivariable binary logistic regression.

Results: 492 patients were included (80.3% female, aged 60.9 ± 13.1 years-old, mean disease duration 15.9 ± 10.5 years). Until the present time, 45.1% (n=222) of the patients retired, this being due to RA in

59.5% of the cases. Early retirement due to RA translated into 6.5 years of active work lost, compared to retirement due to other causes. Patients who retired due to RA are more likely to be younger at diagnosis (49.6 ± 9.0 vs. 56.1 ± 8.6 years-old; $p < 0.01$), female (82.6% vs. 68.9%, $p < 0.01$), have longer disease duration (23.2 ± 10.7 vs. 18.3 ± 9.9 years, $p < 0.01$) and lower educational level (4.5 ± 2.3 vs. 6.0 ± 4.1 school years, $p < 0.01$). In the multivariate analysis, disease-related predictors for early retirement were: disease duration (OR: 1.11; 95% CI 1.08-1.13/year), erosive disease (OR: 4.45 95% CI 2.37-8.35) and the need for biologic therapy switching (OR: 1.37; 95% CI 1.02-1.83). Work-related predictors were: educational level (OR: 0.75; 95% CI 0.68-0.81/year) and heavy manual type of work (OR: 1.62; 95% CI 1.16-2.26).

Conclusion: Early retirement is still common among patients with RA: 60% in this cohort. The main reasons for early retirement are associated with the disease itself, but work-related factors also play a relevant role.

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THU0641 USE OF A WEB-BASED RHEUMATOLOGY PATIENT MANAGEMENT PORTAL

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Background: The benefit of incorporating tele-rheumatology into standard care is increasingly recognised. In January 2017, we introduced a web-based Rheumatology Patient Management Portal (RPMP), developed by MedMet, to our rheumatology patients at the North Devon District Hospital. In 2018 the portal service was fully operational. Suitable patients included undifferentiated inflammatory arthritis, rheumatoid arthritis, psoriatic arthritis and spondyloarthritis. Patients were consented to collected data such as diagnosis, treatment and disease activity onto the RPMP. For a selected group of patients who agreed to their email use, we set up schedules in the form of email reminders for them to complete PROMs (patient reported outcome measures) such as Health Assessment Questionnaire, Spinal Pain, Bath Ankylosing Spondylitis Disease Activity Index and Work Productivity and Activity Impairment. Patients can also report disease flares electronically, which is acknowledged by a health care professional who will contact them with advice as necessary.

Objectives: To understand patient participation in the use of the RPMP, between 01.01.18 and 31.12.18.

To develop a cohort of clinically stable patients who can self-manage via RPMP use and scheduled PROMs. The potential to remotely manage these patients has the advantage of reducing the number of face-to-face clinic appointments and eventually will lead to setting up a virtual clinic.

To examine patient perception on the RPMP use.

To examine whether tele-rheumatology is a useful adjunct to standard care.

Methods: The data was collected from interrogating the web-based RPMP database. Specific data was reviewed including; total number of patients on the portal, number of patients consenting to use their email, number of PROMs completed on the RPMP, number of flares reported and time to acknowledgment. In order to gain further understanding of user experience, a survey questionnaire (figure 1) was sent on 14.01.19.

Results: In total we have 883 patients recruited to the RPMP.

During the study period of one year, 289 patients have consented to share their emails and set up schedules. Therefore 33% of patients on the RPMP are using their emails through 2018. 310 patients responded to their portal request to complete a schedule. 758 PROMs were completed as part of the schedule response. 1744 PROMs were completed face to face whilst in standard clinic review. Therefore, 30% of PROMs were completed through a scheduled response. 55 patients contacted us through the RPMP to report a flare. The average time to acknowledging a flare is 37 hours. 78% of flare reports were acknowledged within 3 days. Results from the survey of patient experience as follow: number of patients responded to the survey was 99 and response rate was 34%.