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Impact of rheumatic diseases**OP0064 CLEFS DE DOS: A UNIQUE PARE-LED VIDEO PROGRAM TO IMPROVE COPING SKILLS OF PEOPLE LIVING WITH AXIAL SPONDYLOARTHRITIS**

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Background: Diagnosis of axial spondyloarthritis (axSpA) is often delayed, with an estimated time to diagnosis of 6 years,¹ leading to patient (pt) anxiety and difficulties in coping with daily life. Many fears and beliefs have been identified,² including unpredictability of the disease course and concerns for the future. A survey revealed that 61% of pts want to share such experiences with other pts.³

Objectives: The goals were to: 1) create a video program to help pts share experiences and promote coping strategies; 2) establish the program on the internet and social networks; 3) assess the usefulness of the program for pts and healthcare professionals (HCPs).

Methods: Clefs de dos is a national French program initiated in 2015. It is led by a pt organisation, ACS-France (Action Contre les Spondylarthropathies), Catalpa (conducted interviews, made visuals) and UCB Pharma (co-creation and promotion). Pts with axSpA were recruited by ACS on a voluntary basis to participate in focus groups; pts were selected according to their level of disease acceptance (denial [Gp1] or acceptance [Gp2]). 4 steps were planned: 1) Gp1 focus group interviews to collect feelings, words and voices; 2) Gp2 interviews to describe the pt pathway and stages in the process of disease acceptance; 3) face-to-face Gp1+Gp2 meetings for pts to share their own experiences and confront their own views; 4) rheumatologist interviews to evaluate the impact of pt testimonies on their own practice.

Results: 13 axSpA pts (10 Gp1, 3 Gp2) participated, aged 25–65 years (yrs), with 5–17 yrs disease duration; 10 were female. An animated visual was produced using Gp1 pt interviews; analysis revealed feelings of loss prior to diagnosis. Photographs and audio testimonies were used to create 3 documentary portraits of Gp2 pts, illustrating the process of disease acceptance and acquisition of coping skills (Figure). Videos of Gp1+Gp2 meetings emphasised interpersonal help and counselling between pts. 3 rheumatologists participated in step 4. They identified the importance of pt interaction to develop positive strategies, pt perspective and removal of barriers in the physician-pt relationship, and use of videos in self-management programs. By December 2016, >5,000 people had visited the website (www.clefsdedos.com), with ~500 Facebook followers from March–December 2016 (www.facebook.com/Clefsdedos/) reaching ~30,000 people via link sharing.

Figure: Example of a Clefs de dos visual creation

Conclusions: Clefs de dos was developed by and for axSpA pts. The program answers unmet needs by sharing pt experiences, particularly in situations of delayed diagnosis and lack of disease acceptance. Online access reflects good acceptability of the program, which can also be used as an educational tool in self-management. The next step is to involve other HCPs (eg. nurses, physiotherapists, psychologists).

References:

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OP0065 NURSE-LED VACCINATION PROGRAM DRAMATICALLY IMPROVES PNEUMOCOCCAL VACCINATION COVERAGE AMONG PATIENTS WITH CHRONIC INFLAMMATORY RHEUMATIC DISEASES: A PROSPECTIVE PILOT STUDY

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Background: Patients with chronic inflammatory rheumatic diseases (IRD) receiving immunosuppressive therapy are at high risk for invasive pneumococcal disease. Despite national recommendations regarding pneumococcal vaccination, vaccination rate remains low in this population.

Objectives: We aimed to determine whether a nurse-led vaccination program improve pneumococcal vaccination coverage among patients with chronic IRD.

Methods: From April to August 2015, all consecutive adult patients with a chronic IRD admitted in our day hospital unit (Department of Internal Medicine, Bichat Hospital, Paris, France) were screened. Eligibility for pneumococcal vaccination was assessed according to French national recommendations. Patients were identified as candidate for pneumococcal vaccination, informed on the benefits and risk of vaccination and vaccinated by nurses. Pre-intervention (i.e. percentage of patients candidate for vaccination vaccinated before the intervention program) and post-intervention (i.e. percentage of patients candidate for vaccination vaccinated after the intervention program) pneumococcal vaccination rate were compared using Chi2 test.

Results: 126 consecutive patients (43 [24–89] years, 61.9% females) with a chronic IRD were admitted in our day hospital unit during a 4 months period. Among them, 76 (60.3%) patients were candidate for pneumococcal vaccination because receiving prednisone, immunosuppressive drugs and/or biotherapy. The pre-intervention pneumococcal vaccination rate was 17.1 (13/76) %. Among patients candidate for pneumococcal infection but not vaccinated (n=63), 56 (88.9%) were accurately identified by nurses. Ten patients refused to be vaccinated and 46 eventually received pneumococcal vaccination. The post-intervention pneumococcal vaccination was 77.6 (59/76) % (p<0.001 as compared to the pre-intervention rate).

Conclusions: Nurse-led vaccination program dramatically improves pneumococcal vaccination coverage among patients with chronic IRD.

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OP0066 THE PROBLEM BASED LEARNING APPLIED TO TEACHING RHEUMATOLOGICAL TOPICS AMONG NON RHEUMATOLOGY RESIDENTS

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Background: Many pedagogical models have been included to the teaching strategies available in almost all fields of knowledge in the last 20th years. In the field of medicine teaching, the traditional teaching (TT) model based on an expert speech aid by a multimedia slide projection is now only one of many strategies. One of them is the Problem-Based learning (PBL) model, which is one of the most applied in undergraduate education; however the documented experience on residents education with rheumatologic contents in Spain is inexistent. PBL model consist in a lecture based in a clinical case or cases that the students must affront using several tools, most of them provided previously by the teacher, and the opinion of their classmates. Groups are encouraged to try to solve the medical problem while the teacher leads debates among the groups.

Objectives: Our goal is to test the impact of PBL model compared to TT among non rheumatology residents who participated in an rheumatology educational program using long term measures in their clinical practice.

Methods: We developed an educational program for second year residents of all medical specialties in our teaching hospital. The topic included the assessment and treatment of lumbar acute pain and was programmed in two separated dates using both the TT and PBL models. Students were unaware of the teaching strategy. Contents of both courses were the same and were prepared by two different experts. We reviewed the registries of medical attention performed by all residents for patients who consulted due to acute lumbar pain, and collected data about three aspects: Adherence to image test recommendations (AITR),

adherence to treatment recommendation (ATR) and recidivism before the 15th day after the day of consultation (need of further consultation due to the same medical problem). Registries included those generated along the first 12 months after the end of the courses.

Results: The TT group generated 175 registries while PBL generated 219. Both groups were formed by 20 non rheumatology second year residents. Proportion of ATR were 73.3 and 60.2% for BLT and TT groups, respectively ($P < 0.001$). Considering only the registries generated in the first trimester after the courses, those proportions were respectively 80.2 and 79.5%. Proportion of ATR were 69.9 and 55.7%, respectively ($P < 0.001$), however when considering only registries generated in the first trimester those proportions were 77.1 and 76.9%, respectively. Global recidivism rate (number of patients who need a further consultation due to the same medical problem or due to the side effects of their treatment among all patients attended) at the first 15th day since the first assessment was 8.7% in the PBL group and 17.5% in the TT group ($P < 0.001$). At the end of both courses a survey to the students were performed. The satisfaction index –measured by a 0–10 progressive ordinal scale– were 9.1 SD 1.3 for the PBL model and 8.2 SD 1.4 for the TT model ($P < 0.05$).

Conclusions: The pedagogical PBL teaching method shows a better academic impact in terms of concept retention and appliance into the medical practice along the time. In our opinion and according to our experience, most programs of education on transversal topics of rheumatology should be taught using the PBL method.

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OP0067 DEVELOPMENT AND VALIDATION OF A MODEL TO FACILITATE RECOGNITION OF ARTHRITIS BY GENERAL PRACTITIONERS

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Background: Early initiation of treatment of rheumatoid arthritis is strongly associated with an improved outcome, but requires the early identification of arthritis. Physical examination of joints is crucial to this end, but is difficult for general practitioners (GPs) who have little experience. Another difficulty is that GPs see many persons with musculoskeletal symptoms per year but only few patients with clinical arthritis. To promote early recognition of arthritis, the Early Arthritis Recognition Clinic (EARC) was initiated in Leiden, the Netherlands in 2010. GPs were instructed to refer to this clinic in case of doubt on the presence of arthritis (and not to wait and see, or to perform additional laboratory tests). At this clinic, patients filled out a form with questions on their symptoms and were seen by a rheumatologist in a short visit that comprised a full joint examination. As reported previously, this clinic importantly improved the early identification of arthritis and RA (1), but this approach may not be easily implemented in other centres or regions.

Objectives: To assess if a combination of symptoms and signs that are easy to assess can differentiate patients with and without clinical arthritis at joint examination.

Methods: 1,288 patients in whom GPs doubted on the presence of arthritis visited the EARC between 2010 and 2015. Reported symptoms and signs were studied with the presence of synovitis (joint examination by experienced rheumatologist) as outcome. Multivariable logistic regression was used. A model was derived in 644 patients, and validated in the second set of 644 patients.

Results: 41% of the patients who visited the EARC had arthritis at examination. Age (per year OR 1.02; 95% CI 1.01–1.03), male sex (OR 1.8; 95% CI 1.3–2.7), symptom duration (4–12 weeks OR 3.83; 95% CI 2.22–6.60), morning stiffness >60 min (OR 1.7; 95% CI 0.9–2.9), difficulty with making a fist (OR 1.6; 95% CI 0.97–2.5), number of tender joints (1–3 tender joints OR 9.7; 95% CI 1.1–81.8) and self-reported swollen joints (OR 3.5; 95% CI 1.8–7.0) were associated with the presence of arthritis in multivariable analysis. The AUC was 0.75 (SE 0.02) in the derivation set and 0.71 (SE 0.02) in the validation set. To facilitate application in practice, a simplified model was made. This consisted of 7 variables and the total score ranged between 0–7. The AUC was 0.73 (SE 0.02). Depending on the cut-off, the PPV of the simplified model ranged between 41 and 74% and the NPV between 100 and 62%. With a cut-off of 4, the NPV was 86%, PPV 49%, specificity 35%, and sensitivity 91%.

Conclusions: A set of clinical characteristics that can be easily assessed by GPs

had a reasonable discriminative ability for clinical arthritis, and can be applied by GPs in case of doubt on the presence of arthritis. This model requires further validation in general practices, but may lead to a tool that could assist GPs in their decision making regarding referral or ordering additional tests for patients with suspected early arthritis.

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OP0068 PRACTICES PARTICIPATING IN THE ACR'S RHEUMATOLOGY INFORMATICS SYSTEM FOR EFFECTIVENESS (RISE) NATIONAL REGISTRY SHOW IMPROVEMENTS IN QUALITY OF CARE

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Background: The ACR launched the RISE registry in 2014 to facilitate quality improvement on a national scale. The registry passively extracts electronic health record (EHR) data from rheumatology practices, aggregates and analyzes these data centrally, and feeds performance on quality measures back to clinicians using a web-based dashboard.

Objectives: We used data from RISE to 1) examine variation in performance on quality measures across practices, and 2) evaluate trends in measure performance over time.

Methods: RISE's informatics platform continuously collects data from the EHRs of participating practices, allowing centralized aggregation and analysis of quality measures. We analyzed data collected between July 1, 2014–July 1, 2016 on all patients seen by 294 clinicians across 63 practices. Measures in the areas of rheumatoid arthritis, drug safety, preventive care and gout were examined. Performance on quality measures, defined as the percentage of eligible patients receiving recommended care, was examined at the practice level. To examine trends in performance over time, we took the subset of practices that continuously participated in RISE since its inception (n=44), and developed 1) control charts and 2) logistic regression models, in which the outcome was practice-level performance each month and the predictor was time.

Results: Data from 289,812 patients was examined. Mean (SD) age was 59 (16) years, 75% were female, 21% were racial/ethnic minorities, and 37% had public insurance. Most rheumatologists were in a group practice (73%); 25% were in solo practice and 2% part of a larger health system. Performance on measures varied significantly across practices (Table). The largest gaps were observed for gout and preventive care. For 4 of 5 measures for which the Medicare program has set national benchmarks, average performance of RISE practices exceeded targets. Of 11 measures, performance improved over time on 5 measures ($p < 0.05$ in logistic models; see Figure for example control chart), was at goal on 4 measures, and saw no improvement on 2 measures (BMI screening and urate target).

Conclusions: We found significant variation in performance on quality measures across RISE practices, with the largest gaps seen in gout care and preventive care. Some practices have achieved a very high level of performance. Over time, RISE practices demonstrated improvement in over half of the measures

Abstract OP0068 – Table 1

Electronic Quality Measure (eQCM)	Measure denominator (N)	Average performance across patients (%)	Average practice-level performance (percentile)		CMS benchmark
			50th	100th	
RA: Assessment of Disease Activity	63,472	52.1	56.1	100	
RA: Functional Status Assessment	63,472	50.0	56.1	100	
RA: DMARD	63,472	90.1	91.4	98.2	9.0
Drug Safety: TB screening pre-biologic	7,842	61.1	66.6	95.7	9.0
Drug Safety: ≥ 1 High-Risk Medication in Elderly*	101,820	4.7	2.8	0	89.7
Drug Safety: ≥ 2 High-Risk Medications in Elderly*	101,820	0.1	0	0	57.8
Preventive Care: Tobacco screening and counseling	219,415	85.3	89.3	99.8	68.5
Preventive Care: BMI documentation, follow-up plan	154,501	26.4	26.7	50.7	
Preventive Care: Blood pressure management	30,607	70.0	63.2	100	

*Lower number indicates higher performance.