Patients initially treated with etanercept, infliximab, abatacept or rituximab were assumed to switch to adalimumab in the event of a non-response, and those initially treated with adalimumab were assumed to switch to etanercept. Based on NICE guidance non-responding patients were assumed to switch treatment after 6 months; 3 months was also evaluated in sensitivity analysis. Drug costs were calculated based on the recommended licensed dose for each drug. Adjusted non-response rates were estimated for each drug using indirect comparison techniques applied to published RCT response rates.

**Results:** Table 1: 6 month switching timepoint results.

**Conclusions:** The cost of both responders and non-responders is higher for adalimumab, etanercept, infliximab and abatacept compared to rituximab assuming a 6 month treatment switching timepoint. If treatment switching was 3 months the mean patient costs when accounting for both the cost of responders and non-responders remained the same as this analysis a 1 year time horizon was assumed, which will understate the cost savings of rituximab in the longer term for patients who respond well to treatment.

**Disclosure:** N.I. is an employee of Roche Products Ltd. G.L. is an employee of Roche.

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### 4.26. ATTITUDES AND PERCEPTIONS OF RHEUMATOLOGISTS REGARDING CONSULTATION SKILLS TRAINING FOR SPECIALIST REGISTRARS (SPRS): A QUALITATIVE STUDY

Ravinder S. Sandhu¹, Bie N. Ong¹, Vincent Cooper¹ and Andrew B. Hassell²

¹Primary Care Musculoskeletal Research Centre, Primary Care Sciences, Keele University, Keele, United Kingdom and ²Staffordshire Rheumatology Centre and School of Medicine, Keele University, Keele, United Kingdom

**Background:** Highly developed consultation skills are essential for rheumatologists. Historically, there has been no culture of direct observation of consultation skills within Rheumatology training and formal assessment of this fundamental skill rarely occurs. The introduction of the “mini-Clinical Evaluation Exercise” (CEX) requires such observation although this creates considerable logistical challenges in conducting mini-CEX in a routine clinical setting. The objective of this study was to explore the attitudes and perceptions of rheumatology specialist registrars (SpRs) and consultants regarding the need for consultation skills training and the use of videotape in this context. We also explored the potential barriers to its successful implementation in the context of specialist training.

**Methods:** Semi-structured interviews with rheumatology consultants and focus groups with rheumatology SpRs were conducted in four UK deaneries in the West Midlands, North West, Yorkshire and Northern regions. Within each region one junior (≤5 years experience) and one senior consultant (≥10 years) was interviewed. All rheumatology SpRs from each Deanery were invited to attend and between 5 and 7 SpRs responded in each site. Focus groups with these SpRs were held. Interviews & focus groups were recorded and transcribed verbatim before thematic analysis.

**Results:** There was significant variation in the amount of consultation skills training received prior to entering specialist training. SpRs and consultants all perceived as important, direct observation of trainee rheumatologists in practice, to provide constructive feedback on their consultation skills. Videotaped consultations were considered potentially useful in this context. Successful implementation of videotaped consultations was perceived to be predicated upon allowing adequate time for feedback and developing consensus on key consultation skills. Participants also felt it key that consultants providing feedback on consultation skills were motivated and appropriately trained. SpRs also believed that feedback should be individualised and tailored to their learning needs.

**Conclusions:** This study demonstrates that rheumatologists increasingly value the ability to observe trainees consulting in practice. Logistic challenges in direct, real time observation of trainees make videotaping consultations a potentially attractive proposition. Important issues to address in developing videotaped consultations as a teaching method within rheumatology specialist training include: time constraints, consistency in the evaluation of consultation skills, and consultant expertise in providing constructive feedback.

**Disclosure:** The authors have declared no conflicts of interest.

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### 4.27. RHEUMATOID FACTOR: THE SURROGATE FOR MUSCULOSKELETAL EXAMINATION AMONG JUNIOR DOCTORS?

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Rheumatology, Torbay Hospital, Torquay, United Kingdom

**Background:** Patients with acute rheumatological problems are often admitted on unscheduled medical take and, in consequence, are often first assessed by doctors with little rheumatology experience. The management of musculoskeletal condi-

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**Disclosure:** The last 75 requests received from orthopaedic, surgical and medical teams for assessment were reviewed. In 52 cases, the request for review related to a known or suspected inflammatory arthritis. The notes of these patients were scrutinized to establish whether:

1. the patient was currently under follow up in rheumatology outpatients
2. the admission was primarily related to an inflammatory joint problem
3. the notes contained a fully documented musculoskeletal assessment

**Results:** Of the 52 arthritis related referrals: 26 were known to the rheumatology department with an established diagnosis of rheumatoid arthritis, in 20 of whom joint problems were a significant contributor to the reason for admission. In these patients only 30% had a musculoskeletal examination of worth documented on admission. However, a rheumatoid factor was checked in 90% and an ANA in 40%.

11 patients not known to the rheumatology team were admitted with an acute monoarthritis. In all of these cases no wider musculoskeletal examinations were noted. Rheumatoid factor was checked in 55%, ANA in 36% and HLA B27 in 27%.

15 patients were admitted with a suspected new acute inflammatory problem. Of these 45% had a musculoskeletal examination documented on admission. 87% had their rheumatoid factor checked on admission and in 80% the ANA was also performed.

**Conclusions:** Our survey shows that the majority of junior doctors on take in our hospital are not documenting appropriate physical examination of acute rheuma-

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### 4.28. ONLINE COMMUNICATION IN AN ARTHRITIS WORKSHOP: SHARING EMPATHY, NARRATIVE SUGGESTIONS, AND CONSTRUCTING IDENTITY AS AN EXPERT PATIENT

Julie Barlow and Sandra Harrison

Self-management Programme, Applied Research Centre in Health & Lifestyle Interventions, Coventry University, Coventry, United Kingdom

**Background:** The Healthier Living with Arthritis Workshop is a 6-week online workshop focusing on self-management and goal setting that is being piloted by Stanford University, USA. Topics covered include problem solving techniques for pain management, isolation; also die a little feedback on recipients' action plans. This feedback is also posted to the website, and is available to all participants.

**Methods:** To examine online feedback, particularly in terms of negative and polite advice strategies.

**Results:** The 24 Workshop participants were US-based, the majority were White, female, average age 55 years and high education levels. Content Analysis was carried out on 455 messages posted during 1 month using politeness theory as the analytical framework.

**Goals:** The authors have declared no conflicts of interest.

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### 4.29. ASSESSING THE CONSULTATION SKILLS OF RHEUMATOLOGY SPECIALIST REGISTRARS: DEFINING THE SKILLS AND COMPETENCIES TO BE ASSESSED

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**Background:** Highly developed consultation skills are essential for rheumatologists. Within Rheumatology training, direct observation and formal assessment of this fundamental skill rarely occurs. The introduction of the “mini-Clinical Evaluation Exercise” (CEX) requires such observation although there is little guidance on the skills and competencies required within the consultation. Our aim is to develop an
instrument to facilitate constructive feedback on rheumatology consultation skills, for use in direct observation of consultations ‘live’ or by videotape. The objective of this study was to explore the views of rheumatology patients and doctors regarding the competencies and skills required for effective rheumatology consultations.

Methods: A focus group interview was conducted with doctors (rheumatology consultants, SpRs and GPs) in each of the West Midlands, North West, Yorkshire and Northern Deanery regions. In addition, focus groups in three of the regions were conducted with rheumatology outpatients. Interviews were semi-structured. The expectations of patients and doctors regarding the rheumatology consultation were explored. Competencies and skills required by the consulting doctor were identified. Focus groups were all recorded and transcribed verbatim. Data were analysed using framework analysis. The data was utilised to inform the content of the assessment tool.

Results: Competencies identified were categorised into eight domains: (i) Building and maintaining a relationship (ii) Opening the discussion (iii) Gathering information (iv) Problem solving (v) Sharing information (vi) Patient management (vii) Closure of the consultation (viii) Efficiency in the consultation. 39 descriptors required to fulfil the above competencies were identified. The questionnaire included joint and diagnostic injections both before and after the course. Prospective data including pre-course, six weeks and long term data was also available for a subgroup of these to exclude the effect of recall bias. Results: 53/84 (63%) of doctors, 46/133 (35%) of patients, 20/27 (74%) injecting pre-course and 47/53 (89%); Fisher exact p < 0.003) were injecting 2 to 48 months after the course. 35/53 (66%) reported injecting into a greater variety of joints after their course than before. None of the doctors were recommissioned on the need for more joint and diagnostic injections.

Conclusion: This study has demonstrated a long term change in joint injection practice following a short training course, which is thought to have resulted in providing practice on patients. It is likely that realistic experiential learning provides a major stimulus for doctors to use the acquired skills in practice.

Disclosure: The authors have declared no conflicts of interest.

430. CREATING AND EVALUATING AN EDUCATIONAL PACKAGE ON SHOULDER PAIN FOR PRIMARY CARE
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Background: GP registrars (GPRs) have previously reported their musculoskeletal training to be inadequate and have highlighted the management of shoulder pain to be an area of particular need. The aim of this project was to develop an educational package on the management of shoulder pain in primary care and to evaluate it with GPRs.

Methods: 2 GP Trainers, 2 GPs with a special interest in musculoskeletal disorders, a physiotherapist, a shoulder surgeon and 2 consultant rheumatologists were involved in a group nominative process to determine the content of the shoulder package. It was then created and given to 5 trainers/trainees for initial feedback using a structured proforma. The updated package was developed. Evaluation of the package is involving a pre and post Clinical Skills Assessment (CSA) test with 14 GPRs on a national training programme over all the regions. Clinical packages of shoulder pain in primary care have been chosen with doctors, specialist nurses and physiotherapists playing the role of patients. The GPRs are being marked according to the above competencies were identified. The questionnaire included joint and diagnostic injections both before and after the course. Prospective data including pre-course, six weeks and long term data was also available for a subgroup of these to exclude the effect of recall bias. Results: 53/84 (63%) of doctors, 46/133 (35%) of patients, 20/27 (74%) injecting pre-course and 47/53 (89%); Fisher exact p < 0.003) were injecting 2 to 48 months after the course. 35/53 (66%) reported injecting into a greater variety of joints after their course than before. None of the doctors were recommissioned on the need for more joint and diagnostic injections.

Conclusion: This study has demonstrated a long term change in joint injection practice following a short training course, which is thought to have resulted in providing practice on patients. It is likely that realistic experiential learning provides a major stimulus for doctors to use the acquired skills in practice.

Disclosure: The authors have declared no conflicts of interest.

432. OFFICE WORK IN PAEDIATRIC MUSCULOSKELETAL (PMSK) CLINICAL SKILLS IN PRIMARY AND SECONDARY CARE DOCTORS
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Background: Children with pMSK problems often present to primary care (GPs), and parents promote ownership and acceptance of the tool by stakeholders. We hope this tool will aid in the conscious development of consultation skills within rheumatologist specialising.

Disclosure: The authors have declared no conflicts of interest.

Results: In total 341 responses (>65% response rate) representing GP principals (28%), trainees (primary care (22%), orthopaedics (12%), A&E (11%), general paediatrics (10%) and consultant paediatricians (17%). The majority (n = 302, 89%) recalled teaching of adult musculoskeletal clinical skills, mainly delivered by adult rheumatologists (48%) or orthopaedic surgeons (37%). Of those taught the GALS screen (n = 122, 36%), a minority (58/127, 46%) used it in their clinical practice. A smaller number recalled pMSK teaching (152/341, 47%) and this was mainly delivered at postgraduate level (87/152, 57%) and by paediatricians (59/87, 68%), orthopaedic surgeons (54/87, 62%) and paediatric rheumatologists (32/87, 37%). Self rated pMSK clinical skills confidence was rated as being ‘in some aspects only’ by the majority of the responders with only a small proportion ‘very confident’ (mainly consultant paediatricians or GPs with special interest in musculoskeletal medicine). With the exception of orthopaedic trainees, self rated confidence in pMSK skills was lower than other systems (cardio, respiratory and gastrointestinal systems) but comparable to confidence in clinical skills in neurology, skin and eyes. Orthopaedic trainees rated their pMSK clinical skills as greater than in all other systems, yet only 26/40 (65%) could recall teaching of pMSK clinical skills. Conclusions: Doctors in primary and hospital practice, to whom children with pMSK problems may present, are not confident in their pMSK clinical skills and do not seem to have adequate exposure to pMSK teaching. This needs to be addressed at undergraduate level and reinforced in postgraduate training.

Disclosure: The authors have declared no conflicts of interest.

433 EVALUATE THE EFFECTIVENESS OF A NEW SELF-MANAGEMENT PROGRAMME FOR PATIENTS WITH CHRONIC PAIN
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Background: Several musculoskeletal problems are treated with intra-articular or peri-articular injections. There is no consensus as to the best method of learning these techniques. Two surveys have suggested that a lack of training and confidence are potential blockings to performing these injections in primary care. A previous small study has demonstrated short term effectiveness of an educational intervention for General Practitioners (GPs; Gormley et al, 2003). This study aimed to see if a training programme could improve skills and practice on real patients could change long term practice amongst GPs.

Methods: Over a four year period, 90 practitioners (including 84 GPs) attending one of 9 injection courses. All GPs were mailed a questionnaire 2 to 48 months after the course. This survey was conducted with rheumatology outpatients. Interviews were semi-structured. The expectations of patients and doctors regarding the rheumatology consultation were explored. Competencies and skills required by the consulting doctor were identified. Focus groups were all recorded and transcribed verbatim. Data were analysed using framework analysis. The data was utilised to inform the content of the assessment tool. Results: Competencies identified were categorised into eight domains: (i) Building and maintaining a relationship (ii) Opening the discussion (iii) Gathering information (iv) Problem solving (v) Sharing information (vi) Patient management (vii) Closure of the consultation (viii) Efficiency in the consultation. 39 descriptors required to fulfil the above competencies were identified. The questionnaire included joint and diagnostic injections both before and after the course. Prospective data including pre-course, six weeks and long term data was also available for a subgroup of these to exclude the effect of recall bias. Results: 53/84 (63%) of doctors, 46/133 (35%) of patients, 20/27 (74%) injecting pre-course and 47/53 (89%); Fisher exact p < 0.003) were injecting 2 to 48 months after the course. 35/53 (66%) reported injecting into a greater variety of joints after their course than before. Knee and shoulder joints were injected most commonly and showed the greatest increase (seven-fold for the knee). 53/53 (100%) of participants reported that they would recommend the course to colleagues. Prospective data was consistent with this: 35/54 (65%) were injecting regularly prior to the course and 25/27 (93%) Fisher exact p < 0.007) were injecting regularly up to 30 months later, in the subgroup for whom this data was available.

Conclusions: This study has demonstrated a long term change in joint injection practice following a short training course, which differed from most such training in providing practice on patients. It is likely that realistic experiential learning provides a major stimulus for doctors to use the acquired skills in practice.

Disclosure: The authors have declared no conflicts of interest.

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delivering the standfor model (see references) of self management programmes for people with arthritis and other long term conditions in the UK since 1994. Arthritis care has long recognised the common thread that people with long term conditions have chronic pain. In response arthritis care together with specialists from Derriford hospital developed a new self management programme "challenging pain" with specific emphasis on chronic pain.

Recent research by Hay 25, 26, 27, 28 and others have found that many people with chronic diseases have unmet needs for information and support. GPs have highlighted the importance of referring patients to self management programmes. The National Health Service (NHS) varies in its support for self management programmes. There is a need for ongoing evaluation of the effectiveness of these programmes. In this paper we report on an evaluation of the effectiveness of the "CHALLENGING PAIN" programme in helping people with chronic pain to improve their self management of their condition.

The study:

Method:

The study was a controlled trial involving patients with chronic pain. The intervention was a 6 week self management programme, delivered in group workshops. The control group received usual care. The study was conducted in south east London. The main outcomes were patient reported measures of chronic pain, health related quality of life, and self management of chronic pain. The study was funded by the National Health Service Research and Development Programme. The study was approved by the local Research Ethics Committee.

Results:

The study showed that the self management programme was effective in improving chronic pain, health related quality of life, and self management of chronic pain. The programme also resulted in improved self efficacy and reduced health distress. The programme was well received by patients and GPs. The programme was delivered in 6 week workshops and took place in the patient's local community. The programme was delivered by a multidisciplinary team, including health professionals and health care assistants.

Conclusion:

The study shows that self management programmes can be effective in improving chronic pain, health related quality of life, and self management of chronic pain. The programme was well received by patients and GPs. The programme was delivered in 6 week workshops and took place in the patient's local community. The programme was delivered by a multidisciplinary team, including health professionals and health care assistants.
Conclusions: Teaching knee aspiration to medical students is effective and feasible. Furthermore it improves junior doctor’s confidence and translates into improved clinical practice. The possibility of extending this training across other medical schools should therefore be considered.

Disclosure: The authors have declared no conflicts of interest.

437. ALL WALES PATIENT QUESTIONNAIRE: UNDERSTANDING OF ANTI-TNF THERAPY DECLINES AFTER THE FIRST YEAR OF TREATMENT

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Background: Patients being considered for anti-TNF therapy are given information on the goals and risks associated with therapy and on what to do if problems are experienced. We previously reported that despite a dedicated education programme, gaps in knowledge still exist. We report on the extension of this survey across Wales.

Methods: All Rheumatology patients in Wales receiving anti-TNF therapy (excluding 2 pilot hospitals) were sent anonymous true/false questionnaires about indications for their therapy, side effects and what to do if they had an infection or needed a surgical procedure. We analysed data received with particular reference to mode of administration and duration of therapy postulating that those on intravenous treatment may have benefited from frequent contact with the healthcare team and therefore score higher, as might those who had more prolonged treatment time on therapy.

Results: 893 questionnaires were distributed with a 72% response rate. 632 replies were analysed: 384 (61%) Etanercept patients, 134 (21%) Adalimumab and 106 (17%) Infliximab. Disease duration: therapy 310 (82%) 2 years, 167 (26%) 1-2 years, 135 (21%) ≤ 1 year. Of the 9 questions analysed, 40% of responders answered 8 or more correctly. Questions relating to indications for anti-TNF treatment had high rates of correct responses (77 - 91%) but questions about toxicity and infection gave more variable results. 35% of patients felt anti-TNF therapy was safe with no side effects and 97% indicated that they would continue therapy (or were unsure) if they had an infection. Similarly, 37% were not aware that therapy should be stopped prior to surgery. There was no statistical difference in responses between those on subcutaneous or intravenous treatment. However, there was a significant difference in the number of correct answers with respect to duration of treatment. A statistically higher proportion of patients on treatment for less than one year scored 8 or more correct answers (p < 0.001). This difference at 1 year was particularly apparent relating to questions relating to toxicity (p < 0.04) and was lost when comparing treatment duration more or less than 2 years.

Conclusions: We had a high response rate in this national survey. Patients are well informed of the goals of anti-TNF therapy. However a significant proportion (37%) did not recognise active infection as a reason for temporary cessation of therapy and a similar number of responders felt there were no significant risks associated with treatment. Reassuringly, patients receiving subcutaneous therapy were as well informed as those on intravenous therapy. Our results suggests that results of the initial questionnaire (relatively in early setting) appear to decline after 12 months of treatment and further educational sessions at this point may address this issue and promote optimal knowledge retention.

Disclosure: The authors have declared no conflicts of interest.

438. POSTGRADUATE PAEDIATRIC RHEUMATOLOGY (PRh) TRAINING WITHIN PAEDIATRICS IN THE UK

Sharmila Jandial and Helen E. Foster
Musculoskeletal Research Group, Newcastle University, Newcastle upon Tyne, United Kingdom

Background: The PRh clinical service in the UK is currently successfully delivered in many areas by adult rheumatologists with training in PRh, working in clinical networks with PRh multidisciplinary teams. However, current adult rheumatology training does not include PRh - future delivery of PRh clinical service in the UK relies on adequate PRh trainees being recruited from within paediatrics. Specialist training within UK paediatrics follows a structure comprising ‘Core’ training (two years, competency based framework [www.RCPCH.ac.uk]) before progressing to a competitive entry point for “Grid” specialty training (usually three years) before progressing to a network with PRh multidisciplinary teams. However, current adult rheumatology provides PRh services in the UK. This needs to be addressed both in general paediatric training and by adult rheumatology services.

Methods: All Rheumatology trainees in Wales receiving anti-TNF therapy (excluding 2 pilot hospitals) were sent anonymous true/false questionnaires about indications for their therapy, side effects and what to do if they had an infection or needed a surgical procedure. We analysed data received with particular reference to mode of administration and duration of therapy postulating that those on intravenous treatment may have benefited from frequent contact with the healthcare team and therefore score higher, as might those who had more prolonged treatment time on therapy.

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Disclosure: The authors have declared no conflicts of interest.

439. HYPERTROPHIC PULMONARY OSTEOARTHRITHIS MIMICKING ATYPICAL RHEUMATOID

Sarah E. Medley and A. L. Dolan
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Background: A 52 year old lady presented to orthopaedics with arthralgia affecting knees, shins and wrists. She was arthroscoped and synovial biopsy of the right knee revealed arthritis. Oligoarticular arthritis was diagnosed and the patient was referred to the Rheumatology service for a rheumatoid arthritis and treated with monotherapy methotrexate and then sulphasalazine with added prednisolone. IM steroid was ineffective. A second diagnosis of facet joint arthritis in part explained her need for additional tramadol, meloxicam and gabapentin for pain control. Rheumatoid factor was negative and inflammatory markers rose from ESR 27 to 101 during treatment. This and her pain, contributed to a very high Disease Activity Score of 8.2. She was a smoker of at least 45 pack years.

Methods: Her symptoms failed to respond to treatment and TNF was planned. Only then was a chest x-ray ordered, which revealed a large right apex mass, which proved to be a squamous carcinoma of the lung. Subsequent resection resulted in rapid and significant improvement in her articular symptoms.

Conclusions: Her haematology team was subsequently transferred to our hospital. All medication except analgesics had been stopped as she was now receiving adjuvant chemotherapy. On examination there was clubbing but no synovitis. There were no tender joints in the upper limbs, but tenderness over the shins and the metatarsophalangeal joints persisted. Radiographs showed metacarpal shaft thickening in the hands compatible with hypertrophic pulmonary osteoarthropathy (HPOA). Periodical reactions were also evident on x-ray of theibia, and metatarsals. There were no erosions.

Conclusions: The possibility of HPOA had been raised by an earlier nuclear medicine bone scan, but this was only in a final report that took over 3 months to be authorised. A preliminary report had not suggested this possibility.

This case illustrates the need for a chest x-ray in new RA. The diagnosis was arrived at with the negative rheumatoid factor and synovial biopsy. Pain and a raised ESR influenced DAS unduly. Atypical unresponsive RA requires review of diagnosis rather than just treatment escalation.

Hypertrophic osteoarthropathy is rare, but may be primary or secondary. In the case of this patient, we were able to identify the small and large cell lung tumour and was able to develop a plan of action to control the joint pain. This case summarises a case of inflammatory arthritis, which was unresponsive to standard therapy. The subsequent findings of clubbing in a smoker, and radiographic changes made the diagnosis of HPOA likely. The resolution of articular symptoms post lung resection was striking.

Disclosure: The authors have declared no conflicts of interest.

440. AN UNUSUAL CASE OF HEPATIC OSTEODYSTROPHY

Sathish Kallankara1 and Tim Gillott2
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Background: Hepatic osteodystrophy (HOD) refers to a combination of osteoporosis and osteomalacia occurring in chronic liver disease. HOD occurs most frequent with longstanding cholestasis and is common in primary biliary cirrhosis (PBC). It is very infrequent at presentation in PBC.

Methods: We present an interesting case of hepatic osteodystrophy associated with PBC, in which the patient presented with osteoporotic fracture well ahead of clinical presentation of PBC.

Results: A 63 year old lady presented in November 2003 with low back ache and loss of height. She did not have any clinical fracture or other systemic symptoms. She attained menopause at 55 years and did not have any other risk factors for osteoporosis. She denied any personal or family history of significant medical diseases. Clinical examination was unremarkable except for marked kyphosis. Her height loss of height. She did not have any clinical fracture or other systemic symptoms. She attained menopause at 55 years and did not have any other risk factors for osteoporosis. She denied any personal or family history of significant medical diseases. Clinical examination was unremarkable except for marked kyphosis. Her height

Conclusions: This case summarises a case of PBC with hepatic osteodystrophy as an unusual presentation. This case highlights the need for a high index of suspicion for hepatic osteodystrophy in patients with unexplained bone pain.

Disclosure: The authors have declared no conflicts of interest.

Poster Viewing ll

Thursday 24 April 2008, 08.30–10.00

Congratulations: Opportunity for PRh training within general paediatrics are limited and confined to PRh tertiary centres. The RCPCH core competency framework for all paediatricians includes musculoskeletal medicine and few Regions in the UK offer appropriate training. This is likely to adversely affect recruitment to the PRh specialty & the achievement of core competencies required by all paediatricians. Given that future adult rheumatologists will not be trained to deliver PRh services as at present, this study suggests a shortfall in paediatric trainees in PRh with major implications for manpower planning for the future provision of PRh services in the UK. This needs to be addressed both in general paediatric training and by adult rheumatology services.

Disclosure: The authors have declared no conflicts of interest.