

characteristics (age, sex), symptomatic joints other than the surgical joint (right and left shoulders, elbows, wrists, hands, hips, knees, feet, ankle, neck and back), body mass index (BMI), comorbidities (hypertension, depression, diabetes, migraine headaches, cancer, respiratory disease, heart disease, stomach/bowel disease, stroke) and WOMAC hip- and knee-specific pain and function.

Results: Study questionnaires were completed by 366 hip and 407 knee patients. The mean age of the sample was 65 years (SD=9.2; range 38–89 years), 57% were female. The most frequently reported symptomatic joints among knee patients were the contralateral knee (53.2%), one or both hands (32.1%), and the upper-, mid- or lower-back (31.0%), and among hip patients were one or both knees (49.4%), the back (36.6%), and the contralateral hip (21.3%). The overall mean number of symptomatic joints other than the surgical joint was 3.0 (SD=3.2; range 0–17). Only 19.0% reported the surgical joint as the only symptomatic joint; 23.0% reported 5 or more additional symptomatic joints. Mean hip/knee-specific pain and function scores were significantly worse with increasing symptomatic joint count ($p < 0.01$). Additional symptomatic joints were significantly more frequent in women than men; mean count 3.6 vs. 2.3 ($p < 0.01$). No significant difference in mean joint count ($p = 0.64$) was observed by age. Similarly, no difference was found by BMI (i.e. overweight/obese vs. normal); $p = 0.24$ for mean count. However, the number of co-occurring conditions increased with increasing joint count: 27.2% reported 2+ co-occurring conditions among those with 1–4 symptomatic joints, and 42.8% among those with 5+ symptomatic joints ($p < 0.01$).

Conclusions: In this clinical OA sample, the “average” patient reported multiple symptomatic joints. Increasing age was not associated with increasing frequency of symptomatic joints. Irrespective of age and obesity, multiple symptomatic joints were the rule, not the exception. It was notable that the frequency of co-occurring conditions increased with increasing symptomatic joint count. This may suggest a need to re-examine how OA is characterized and perhaps its underlying etiology as it relates to single vs. multi-joint involvement.

Disclosure of Interest: None declared

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SAT0689 PREVALENCE OF AND TEMPORAL TRENDS IN HYPERURICAEMIA AMONG ADULT PATIENTS WITH CHRONIC KIDNEY DISEASE IN IRELAND

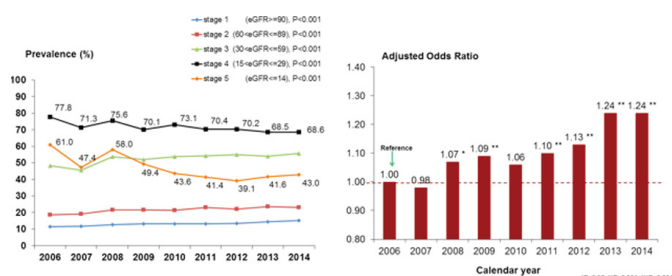
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Background: An increasing body of evidence links hyperuricaemia with the development of several metabolic disorders and major cardiovascular outcomes. A better understanding of the burden and variation of hyperuricaemia within the health system is important in order to identify high-risk groups and facilitate early intervention with effective management strategies.

Objectives: The aim of this study was to describe the prevalence of hyperuricaemia, and period trends within the Irish Health System among patients with chronic kidney disease (CKD).

Methods: 136,325 adult CKD patients aged 18 and above with valid measurements of serum uric acid and creatinine levels were identified between 2006 and 2014 from the laboratory systems within the Irish health system. Hyperuricaemia was defined as serum uric acid $\geq 420 \mu\text{mol/L}$ in men and $\geq 360 \mu\text{mol/L}$ in women. Estimated glomerular filtration rates were determined using the Chronic Kidney Disease-Epidemiology Collaboration (CKD-EPI) equation and patients were classified by CKD stage according to the Kidney Disease Improving Global Outcomes (KDIGO) staging system. Age- and sex-specific prevalence of hyperuricaemia estimates with 95% confidence intervals were determined for each group and across calendar years. Comparisons among groups and across years were conducted using chi-square and multivariate logistic regression was used to explore associations using adjusted odds ratios (AOR) and 95% Confidence Intervals (CI).

Results: Patients with hyperuricaemia were noted to be older [58.2 (18.5) vs. 51.2 (17.4) years]. The prevalence of hyperuricaemia increased progressively between 2006 and 2014 from 20.3% (19.5, 21.0) to 26.5% (25.8, 27.2%) in men and from 17.9% (17.2, 18.6) to 20.4% (19.8, 21.0) in women, $p < 0.001$. Age-specific prevalence increased significantly over time for all age groups (18–39, 40–59, 60–79, and ≥ 80 years) for men and women, $p < 0.001$. Prevalence was significantly higher with more advanced CKD stage: 15.1% (14.5, 15.6) in Stage



1 CKD compared to 43.0% (34.8, 51.1) in Stage 5 CKD, $p < 0.001$. However, rates fell significantly for those Stage 4 and 5 CKD respectively (Figure 1). In multi-variable models, the adjusted likelihood of hyperuricaemia increased with each successive year (Figure 2).

Conclusions: The prevalence of hyperuricaemia is substantial in the Irish health system and has increased in frequency over the past decade. Although the burden was highest among patients with more advanced CKD, an encouraging decline in prevalence was observed in recent years. Greater management of gout and hyperuricaemia from increasing utilization of urate-lowering therapies may be responsible for this trend.

Disclosure of Interest: None declared

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SAT0690 RISK OF HOSPITALIZED INFECTION IN CANCER PATIENTS WITH AUTOIMMUNE DISEASES: A SINGLE-CENTER COHORT STUDY

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Background: Whether the risk of hospitalized infection is associated with autoimmune diseases in incident cancer patients is unknown.

Objectives: To examine the risk of hospitalized infection in incident cancer patients with autoimmune diseases compared with those without autoimmune diseases.

Methods: During 2000–2016, we identified 37,027 incident cancer patients from the Cancer Registry database of Taichung Veterans General Hospital. Autoimmune diseases included rheumatoid arthritis (RA), systemic lupus erythematosus (SLE), ankylosing spondylitis (AS), psoriasis (PSO)/psoriatic arthritis (PSA), antiphospholipid syndrome, polymyositis, dermatomyositis, systemic sclerosis, Sjögren's syndrome, mixed connective tissue disease, multiple sclerosis, neuromyelitis optica, palindromic rheumatism, myasthenia gravis, Hashimoto's thyroiditis, immune thrombocytopenic purpura, autoimmune hemolytic anemia, juvenile idiopathic arthritis, adult onset Still's disease, Crohn's disease, ulcerative colitis, Wegner's granulomatosis, and uveitis. Of all subjects, 1,334 had autoimmune diseases. The association between autoimmune diseases and hospitalized infection risk was shown by calculating hazard ratios (HRs) with 95% confidence intervals (CIs) using cox proportional regression analyses after adjusting for baseline age, sex, cancer stage, hemoglobin (Hgb), creatinine (CR), log(ALT), log(WBC), and use of biologic agents or tofacitinib.

Results: Among all cancer subjects, the mean \pm SD age was 60.2 \pm 14.7 years, and the proportion of male gender was 55.7%. Of the 1,334 patients with autoimmune diseases, 338 (25.3%) patients had RA, 221 (16.6%) patients had SLE, 61 (4.6%) patients had AS, 151 (11.4%) patients had PSO/PSA, and 563 (46.8%) had other autoimmune diseases. The incidence rates of hospitalized infection were 143.8 per 10³ years in patients with autoimmune diseases and 118.9 per 10³ years in patients without autoimmune diseases. The risk of hospitalized infection was higher in patients with RA and SLE, but not in patients with AS, PSO/PSA, or other autoimmune diseases. Prior use of biologic agents or tofacitinib did not increase hospitalized infection risk. Other risk factors for hospitalized infection included elder age (HR, 1.01; 95% CI, 1.01–1.1), higher cancer stage, CR (HR, 1.04; 95% CI, 1.02–1.06), log(WBC) (HR, 1.21; 95% CI, 1.14–1.28). Female gender (HR, 0.65; 95% CI, 0.62–0.68) and Hgb (HR, 0.89; 95% CI, 0.88–0.90) were associated lower hospitalized infection risk.

Table 1. Univariable and multivariable analyses for the association between autoimmune diseases and hospitalized infection among cancer patients

	Univariate analysis HR (95% CI)	Multivariable analysis* HR (95% CI)
No autoimmune diseases	Reference	Reference
Autoimmune diseases		
RA	1.32 (1.10–1.59)	1.37 (1.13–1.66)
SLE	1.21 (0.95–1.54)	1.41 (1.10–1.80)
AS	0.67 (0.37–1.21)	0.88 (0.46–1.70)
PSO/PSA	1.36 (1.05–1.78)	1.05 (0.80–1.38)
Others	1.17 (1.01–1.36)	1.15 (0.99–1.34)

*Adjusted for age, gender, cancer stage, prior use of biologic agents or tofacitinib, baseline hemoglobin, creatinine, log (ALT) and log (WBC).

Conclusions: Hospitalized infection was associated with a comorbidity of RA or SLE in incident cancer patients.

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