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O28 HAS MODERN UK MANAGEMENT OF RA LED TO A REDUCTION IN USE OF STEROIDS AND NSAIDS? 20-YEAR DATA FROM THE CLINICAL PRACTICE RESEARCH DATALINK

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Background: Over 20 years, rheumatoid arthritis (RA) management has evolved to immediate initiation and more effective escalation of disease-modifying anti-rheumatic drugs (DMARDs) to suppress inflammation. We aimed to establish whether this has facilitated reduced long-term use of potentially toxic glucocorticosteroids (GCs) and nonsteroidal anti-inflammatory drugs (NSAIDs).
Methods: We investigated changes in DMARD, oral GC and NSAID prescribing over 1998-2017 in a UK primary care electronic health records database. We defined RA by coded diagnosis, sensitivity analyses requiring (a) two diagnoses $\geq$6 months apart; (b) $\geq$1 DMARD prescriptions. We calculated annual RA incidence and prevalence, annual prescribing and prescribing in the first to fifteenth year from diagnosis. Long-term prescribing was defined as $\geq$3 months ($\geq$6 in a sensitivity analyses) and compared with a non-RA cohort (5:1 matched on age, sex and GP practice).
Results: We included 71,411 RA patients (44,426 with 2 diagnoses, 45,438 with DMARD). Incidence declined from 5.01 ($\pm$0.36) per 10,000 person-years in 1998 to 4.77 ($\pm$0.23) in 2011, before increasing following changes in Quality Outcomes Framework indicators. Prevalence rose from 0.70% ($\pm$0.013) in 1998 to 0.91% ($\pm$0.014) in 2017 and was highest among patients aged $\geq$70 (2.21%, $\pm$0.05). Long-term DMARD prescribing rose from 30.97% in 1998 to 49.28% in 2017. Long-term NSAID prescribing fell (45.94% to 25.08%) particularly amongst incident RA patients, with only modest change in GCs (20.98% to 15.53%) (Table 1). By comparison, long-term GC prescribing in the matched non-RA population rose (0.90% to 2.01%) and NSAID prescribing changed little (6.37% to 8.41%). The proportion with long-term prescribing declined slightly from the first to the third year following diagnosis for GCs (22.18% to 17.87%) and NSAIDs (41.19% to 34.30%). Sensitivity analyses showed similar results.
Conclusion: Long-term GC prescribing among newly diagnosed RA patients has not appreciably reduced despite modern treatment paradigms and the expected observed increase in DMARD prescribing. Long-term NSAID prescribing did decrease in primary care for RA (especially from mid-2000 and among newly diagnosed patients), but interestingly, not for non-RA patients. Given the scope for further reduction in GC and NSAID prescribing, the reasons for persistent prescribing, including prescribing behaviours, require further investigation.

Proportion with long-term prescribing per year, overall and during 12 months following RA diagnosis

Year	Proportion (%) with long-term medication prescribing (N = 68,939)			Proportion (%) with long-term medication prescribing in the first year following diagnosis (N = 29,918)		
	Oral GC	NSAID	DMARD	Oral GC	NSAID	DMARD
1998	21.0	45.9	31.0	22.2	57.7	41.6
1999	20.9	44.5	32.2	23.2	56.7	44.4
2000	21.5	42.2	33.3	23.3	54.4	44.9
2001	21.6	42.0	35.3	21.7	51.7	46.4
2002	21.2	41.4	36.5	22.2	53.4	47.4
2003	21.0	40.7	38.6	24.1	50.6	50.3
2004	20.8	40.9	40.2	22.7	53.7	51.8
2005	20.8	42.7	41.7	23.3	52.1	52.3
2006	20.6	40.0	42.9	24.7	46.8	55.3
2007	20.5	37.8	44.2	27.5	47.6	62.0
2008	20.4	36.4	46.2	26.3	43.6	63.9
2009	20.2	34.7	47.8	26.3	38.6	67.9
2010	19.9	33.2	49.1	25.8	39.5	67.1
2011	19.6	32.6	50.9	24.8	36.6	67.1
2012	19.4	31.1	51.6	25.5	33.8	65.1
2013	18.2	29.6	52.0	17.3	31.2	51.9
2014	17.1	28.5	51.3	16.4	26.6	47.8
2015	16.2	27.3	50.3	16.7	28.9	53.2
2016	16.1	27.0	50.1	19.1	27.1	54.7
2017	15.5	25.1	49.3			

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