Table 1. Healthcare resource utilisation of patients with systemic lupus erythematosus between in Western Australia between 2000-2019.

	Outpatient	ED Visits	Admissions
Patients, n (%)	179 (100)	143 (79.9)	125 (69.8)
Total events, n	13,320	794	678
Visit rate per 100 patient years (95%CI)	738.9 (726.3, 751.4)	44.0 (41.0, 47.2)	37.6 (34.8, 40.5)
Patients with ≥ 2 visit per annum, n (%)	153 (85.5)	110 (77.0)	94 (75.2)
Patients with ≥ 4 visits per annum, n (%)	112 (62.6)	77 (53.9)	63 (50.4)
Patients with >10 visits per annum, n (%)	37 (20.7)	17 (11.9)	13 (10.4)
Discharged from ED, n (%)	-	684 (93.8)	-
Admitted from the ED, n (%)	-	110 (77.0)	110 (88.0)
Average length of stay, median (IQR)	-	3.0(2.1, 4.0) hrs	3.2 (1.5, 5.8) days
Patients with an overnight admission, n (%)	-	-	122 (98)
Overnight admissions, median (IQR)	-	-	3 (1, 5)
Patients with admissions >7 days	-	-	53 (42.4)
Costs AUD (FY2018/19)	\$6,273,720	\$869,430	\$10,997,485

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AB1185

BUDGET IMPACT ANALYSIS OF INTRODUCING SUBCUTANEOUS INFILIXIMAB CT-P13 SC FROM THE UK PAYER PERSPECTIVE

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Background: CT-P13 subcutaneous (SC) is the first and only SC version of infliximab developed by Celltrion Healthcare and currently approved by the European Medicines Agency (EMA) for the treatment of rheumatoid arthritis (RA). Infliximab has been only available in intravenous (IV) formulation and thus this new mode of administration will allow patients to self-inject at homes. Self-injection will reduce number of outpatient visits and expected to decrease IV administration cost significantly. This research describes the economic impact of introducing infliximab SC from the UK payer perspective.

Objectives: The budget impact analysis (BIA) was conducted to assess the financial impact of the adoption of infliximab SC. The BIA calculates the costs of treatment (drug acquisition cost and administration) for patients with RA as first-line treatments, and compares the cost in a scenario without infliximab SC vs a scenario with infliximab SC to estimate the budget impact over the 5 year period.

Methods: A prevalence-based BIM was developed incorporating epidemiological data, administration cost data from the literature and market share data from IQVIA. The analysis compared a market scenario where a proportion of patients were treated with infliximab SC ('World With' infliximab SC) to an alternative market scenario where infliximab SC were not available and all patients were treated with IV ('World Without' infliximab SC). The model assumed that the clinical outcomes are same between infliximab SC and infliximab IV, and patients entering the model were all naïve and remained in the treatment for 5 years. In the 'World With' scenario, patients receiving infliximab IV switched to SC administration at 30% in Year 1, 45% in Year 2, and remained 60% from Year 3 to 5. The drug cost of infliximab SC is assumed to be the same as that of comparator treatments. Administration cost per infliximab IV infusion was estimated to be £382 and £3.32 per SC administration.

Results: Compared to the "World Without" infliximab SC, the introduction of subcutaneous infliximab resulted in cost savings of £39.6 million in UK over a 5-year period, equating to 4,466 additional patients to be treated with infliximab SC in base case scenario.

Sensitivity analysis includes dose-escalation up to 5mg/kg to reflect the real-world setting. In that scenario, the saving increases to £279.6 million over a 5-year period, equating to 30,839 additional patients to be treated with infliximab SC.

Conclusion: Utilization of subcutaneous infliximab may lead to substantial cost savings for UK payers. Self-injection will significantly reduce the burden on healthcare delivery allowing resource to be spent elsewhere. Sensitivity analysis concluded that treatment with increased IV dose will result in higher savings from switching patients to subcutaneous infliximab.

References:

- [1] European Medicines Agency. Remsima SC authorization details. https://www.ema.europa.eu/en/documents/product-information/remsimas-epar-product-information_en.pdf
- [2] Carpenter, L., et al. (2014). Patients with Moderate Disease Activity in the First 5 Years of Rheumatoid Arthritis Still Progress Radiographically Despite Conventional Disease Modifying Therapy. 2135. *Arthritis & Rheumatology*, 66.
- [3] The NICE British National Formulary (BNF). <https://bnf.nice.org.uk/medicinal-forms/>
- [4] Tetteh, E. K., & Morris, S. (2014). Evaluating the administration costs of biologic drugs: development of a cost algorithm. *Health economics review*, 4(1), 26.
- [5] National Institute for Health and Care Excellence. (2016). Adalimumab, etanercept, infliximab, certolizumab pegol, golimumab, tocilizumab and abatacept for rheumatoid arthritis not previously treated with DMARDs or after conventional DMARDs only have failed.

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AB1186

THE NHS SCOTLAND THERAPEUTIC DRUG MONITORING SERVICE FOR BIOLOGIC MEDICINES: PRELIMINARY ANALYSIS OF UTILISATION AND CLINICAL RESULTS AT YEAR 1

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Background: Anti-tumour necrosis factor α (anti-TNFα) drugs infliximab (IFX) and adalimumab (ADL) are effective treatments for several rheumatic diseases. Therapeutic drug level and anti-drug antibody monitoring (TDM) has emerged as a useful tool for optimising drug effectiveness, by identifying individuals who may benefit from dose or treatment frequency adjustment, or have secondary drug failure due to immunogenicity.

Objectives: Ensuring safe and effective use of biologic medicines has been identified as a key priority for NHS Scotland. Inequity and inconsistency of access to TDM across the nation was recognised as a barrier to delivering best practice and so a nationally commissioned TDM service was proposed in January 2018 to support clinical practice, providing universal access to TDM for services treating inflammatory diseases across Scotland. Data collection and analysis of results regarding usage and clinical impact of the service were identified as key outcome measures to assess service success and sustainability.

Methods: A service webpage was developed to provide guidance on testing strategies and interpretation of TDM results (1). An automated search of clinical data and test results recorded within the clinical biochemistry electronic results management system was conducted to identify all TDM tests performed between 01/01/2018 and 31/12/2018. Descriptive analysis outcomes included the number of samples received, processed, overall testing population, service utilisation by Health Board, number and results of TDM tests performed per patient. TDM results were interpreted according to published guidance on the service webpage and comparison was made with previously published data (2).

Results: 3609 specimens were received for testing, from 13 of the 14 Scottish Health Boards. 3561 drug level (DL) tests were performed; 1786 IFX, 1775 ADL. 2717 total antidrug anti-body (TABT) tests and 681 free antidrug anti-body tests (FABT) were performed according to service protocol. 2791 individuals had one or more TDM tests during the 12-month period, of whom 541 were tested twice or more (range 2-5).

Table 1. IFX & ADL DL, TABT and FABT results by category as defined in service guidance (AU/ml = Arbitrary Units/ml)]

		INFILIXIMAB	ADALIMUMAB	
Drug level by category	Supratherapeutic DL > 8mcg/ml	546 (30.6%)	708 (39.9%)	Supratherapeutic DL > 10 mcg/ml
	Therapeutic DL ≥3<8.1mcg/ml	738 (41.3%)	636 (35.8%)	Therapeutic DL ≥5<10.1 mcg/ml
	Sub-therapeutic DL < 3mcg/ml	502 (28.1%)	431 (24.3%)	Sub-therapeutic DL < 5 mcg/ml
				Negative (<10 AU/ml)
TABT by category	Negative (<10 AU/ml)	791 (54.2%)	905 (71.9%)	