Abstract P152 Table 1

	No. of DLs (% of total)	No. with ADA (%)	No. on non standard dose (%)	No. on CI(%)	Median DL (mcg/ml)
DL < 5µg/ml	190(19.4)	109(57.3%) 4 ADA not done	35(18.4)	46(24.2)	2.9(<0.4–4.9)
DL > 5µg/ml	789(80.6)	61(7.7) 332 ADA not done	195(24.7)	240 (30.4)	9.8(5->36)

mcg/ml. 109(57.4%) with DL <5 mcg/ml had positive ADL anti-drug antibodies (ADA). 35 (18.4%) with DL < 5µg/ml were on non-standard dosing of ADL compared with 195 (24.7%) with DL >5µg/ml. Table 1 summarises pTDM results by drug level.

Conclusion Low rates of subtherapeutic DL result are observed when using a pTDM strategy for individuals with IBD treated with ADL. ADAs may be associated with low DLs but more evidence is needed to demonstrate this. 19.4% had low DLs despite being in clinical remission. They may benefit from early reassessment including repeat TDM to consider dose escalation to achieve DL >5µg/ml or conversely drug withdrawal may be an option. Furthermore 380 individuals in remission with DL >10µg/ml who may be suitable for dose de-escalation as part of a pTDM strategy were identified. A prospective, observational study to evaluate long-term clinical outcomes associated with rTDM vs. pTDM strategies within the Scottish TDM service is ongoing.

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REFERENCES

1.. Lamb CA, et al. *Gut*(2019)Dec;68(Suppl 3):s1-s106.
2. https://www.nhsggc.org.uk/media/251621/scottish-biologic-tdm-service-gastroenterology-guidance-03122018.pdf

P153 LOW RATES OF SUBTHERAPEUTIC DRUG LEVELS ARE OBSERVED WITH PROACTIVE THERAPEUTIC DRUG MONITORING OF INFLIXIMAB

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Introduction Recommendations for use of therapeutic drug monitoring (TDM) in clinical practice are set out in the 2019 BSG IBD guidelines.[1] Reactive (rTDM) or proactive (pTDM) strategies may be used. To date there is little good quality evidence to support routine use of pTDM testing for patients in ongoing clinical remission. Since 2018, a biologic TDM service has provided testing to IBD teams across Scotland.[2] Additional clinical information collected prospectively at the time of testing has been used to develop a national TDM database. This study aimed to assess the current use of pTDM with infliximab (IFX) in the Scottish Biologic TDM service, examine the DL results observed with IFX pTDM and explore factors associated with results above and below the commonly accepted therapeutic IFX drug level (DL) target of 3µg/ml.

Abstract P153 Table 1 summarises pTDM results by DL category

	No. of DLs (% of total)	No. with ADA (%)	No. on escalated IFX dosing (%)	No. on concomitant immunomodulator (%)	Median DL (µg/ml)
DL < 3µg/ml	159(22.6)	39(24.5)	42(27.1)	91(42.8)	1.5(<0.3–2.9)
DL > 3µg/ml	546(77.4)	144(26.4) *207 ADA not done*	272(49.8)	263(48.2)	7.15(3->43)

Methods IFX TDM results with available supplementary clinical information performed between 01/01/18–30/09/19 were identified from the TDM database. All pTDM results and associated data were identified for cohort analysis.

Results 1331 IFX TDM tests were identified. pTDM testing accounted for 705(52.9%) results. Median DL was 5.9 (<0.3->43) µg/ml. 546(77.4%) had DL > 3µg/ml, 235 (33.3%) had DL >8µg/ml. 159(22.6%) had low DL result <3µg/ml. 39(24.5%) with DL <3µg/ml had positive IFX anti-drug antibodies (ADA). Only 43(27%) results with low DL reported escalated dosing regimes (>5 mg/kg every 8 weeks) compared with 273(59.2%) test results with DL >3µg/ml

Conclusion In this cohort analysis of IFX pTDM test results low rates of subtherapeutic DL were observed. Low DL results were associated with lower rates of IFX dose escalation but not with use of concomitant immunomodulator or presence of ADAs. Escalated treatment doses of IFX were observed in 50% of tests with a DL >3µg/ml which suggests that pTDM is being used as a tool to dose optimise IFX therapy in an effort to maintain clinical remission.

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1. 1. Lamb CA, *et al. Gut* (2019)Dec;68(Suppl3):s1–s106.
2. https://www.nhsggc.org.uk/media/251621/scottish-biologic-tdm-service-gastroenterology-guidance-03122018.pdf

P154 VEDOLIZUMAB DRUG LEVELS ARE NOT ASSOCIATED WITH OUTCOMES OR DISEASE ACTIVITY IN INFLAMMATORY BOWEL DISEASE

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Introduction Treatments in inflammatory bowel disease(IBD) include anti-TNFα and anti-integrin biologics. Therapeutic drug monitoring(TDM) supports clinical decision making and improves outcomes with anti-TNFα drugs[1,2]. It is unclear if TDM offers benefits with vedolizumab(VDZ), and there are no clinical guidelines for its use[3]. The aim of this study was to identify if drug levels(DL) are associated with clinical