WHY WE STARTED
Calprotectin levels in sent-in stool samples are usually measured with an enzyme-linked immunosorbent assay (ELISA). Several manufacturers introduced a lateral flow-based home test with software application that turns a smartphone camera into a reader for quantitative measurements (table 1).

WHAT WE FOUND (1)
In the low calprotectin range (≤500 µg/g) IBDoc, QuantOn Cal and CalproSmart showed 87%, 82% and 76% agreement with their companion ELISAs. In the high range (>500 µg/g) the agreement was 37%, 19% and 37%, respectively.

WHAT IT MEANS
All three home tests had acceptable agreement with their companion ELISAs in the low calprotectin range (≤500 µg/g). The IBDoc smartphone application outperformed the others in terms of error-friendliness and system usability.

WHAT WE LEARNED
To minimize wrongful interpretation of calprotectin changes over time it is essential to always use the home test and companion ELISA of one and the same manufacturer.

This work was supported by BÜHLMANN Laboratories AG. Immundiagnostik AG kindly donated reagents and extraction devices for unrestricted use. Neither company had a role in the design of this study, nor in the execution, analyses, interpretation of the data or decision to submit results.