Background
There are few validated instruments for rating clinical significance of pharmacy contributions to care with no accepted gold standard.1 We sought to finalise validation of the IMPACCTS (InstruMent for PhArmacy Clinical Contributions To care Significance) tool which consists of:
• 5 ordered levels
• Each level underpinned by descriptive statements (45 in total)
• A 6th level (level 0) denoting a contribution deemed inappropriate or potentially harmful
A robust process to ensure simplicity and clarity of the instrument has previously been reported.2,3

Aims and Objectives
To finalise validation of IMPACCTS by:
• Demonstrating comprehensiveness of the instrument. Aiming for 100% of scenarios to be assigned a statement using IMPACCTS
• Quantifying interrater reliability

Method
Comprehensiveness
450 clinical scenarios randomly selected
Scenarios randomly divided into 10 sets of 45
20 pharmacists paired to review 45 scenarios each
Each set of 45 scenarios reviewed by 2 pharmacists
Pharmacists asked to find a corresponding statement or level

Interrater Reliability
Detailed descriptions of 15 randomly selected clinical scenarios provided
All 20 pharmacists asked to review the same 15 scenarios and use IMPACCTS to rate the clinical significance of each
Intraclass correlation (two-way, random effects, absolute agreement, individual) calculated using Stata v14

Results
Comprehensiveness
• For all scenarios, at least one person found a statement.
• A statement and/or level could be assigned for 99.8% of scenarios by two pharmacists.

Interrater Reliability
• Intraclass correlation was 0.71 (95% CI = 0.55, 0.86), equalling moderate to good pharmacist agreement.4,5

Conclusion
• Excellent comprehensiveness and moderate to good interrater reliability of IMPACCTS has been demonstrated.
• The instrument is ready for widespread adoption in both research and practice to assess the clinical severity of pharmacy contributions.
• IMPACCTS is only validated for use in UK hospitals at this time.
• Repeat studies would be needed to confirm appropriateness for use in other pharmacy settings.

References
4Koo, T. K., & Li, M. Y. Journal of chiropractic medicine (2016); 15(2), 155-163

IMPACTS – InstruMent for rating Pharmacy Clinical Contributions To care Significance
• IMPACTS is a pharmacy clinical contributions severity rating scale for potential patient outcome.
• The tool has no clinical significance levels (levels 0 for 5).
• Under each significance level there are a number of statements which describe different types of clinical pharmacy contributions

Level 1 – Low or could lead to an undesirable outcome/pharmacist’s actions were inappropriate.
Level 2 – Good practice leading to no harm or clinical benefit to the patient.
Level 3 – Aiming to avoid doing worse where the risk of harm or likelihood of benefit is not significant.
Level 4 – Moderate level of benefit where the pharmacist’s actions are demonstrative of a positive benefit on the patient.
Level 5 – Excellent level of benefit where the pharmacist’s actions are demonstrative of a significant positive benefit on the patient.

Intraclass correlation (two-way, random effects, absolute agreement, individual) calculated using Stata v14

Breakdown of comprehensiveness results (n = 450)

Scenarios where level or statement assigned by two pharmacists (8/450)
Scenarios where level or statement assigned by one pharmacist (1/450)