605 randomly allocated
305: ursodeoxycholic acid
300: placebo

76 had no post-randomisation visit data
73 delivered within 2 weeks of randomisation
3 did not have any visit data collected
2 withdrew from trial

527 included in secondary analysis
271: ursodeoxycholic acid
256: placebo

Bile acid analysis

271 analysed on ursodeoxycholic acid

256 analysed on placebo

15 had no post-randomisation bile acid data
10 delivered within 2 weeks of randomisation
5 did not have bile acid levels requested

9 had no post-randomisation bile acid data
6 delivered within 2 weeks of randomisation
3 did not have bile acid levels requested

256 had baseline bile acid data and bile acid data from at least one visit post-randomisation (Figure 1)
60 baseline bile acid ≥40 µmol/L
20 baseline bile acid ≥100 µmol/L

Figure 1: bile acid response stratified by baseline bile acid concentration

247 had baseline bile acid data and bile acid data from at least one visit post-randomisation (Figure 1)
56 baseline bile acid ≥40 µmol/L
14 baseline bile acid ≥100 µmol/L

15 did not have visit 1 bile acid data

16 did not have visit 1 bile acid data

241 had baseline bile acid data and bile acid data from at least one visit post-randomisation, including visit 1 (Figure S2)

Figure S2: bile acid response stratified by baseline bile acid trajectory

231 had baseline bile acid data and bile acid data from at least one visit post-randomisation, including visit 1 (Figure S2)

Itch analysis

271 analysed on ursodeoxycholic acid

256 analysed on placebo

16 had no baseline itch data
14 had no post-randomisation itch data

8 had no baseline itch data
21 had no post-randomisation itch data

241 had baseline bile acid data, baseline itch data and itch data from at least one visit post-randomisation (Figure 2)
54 baseline bile acid ≥40 µmol/L
15 baseline bile acid ≥100 µmol/L

Figure 2: itch response stratified by baseline bile acid concentration and baseline itch score

227 had baseline bile acid data, baseline itch data and itch data from at least one visit post-randomisation (Figure 2)
49 baseline bile acid ≥40 µmol/L
11 baseline bile acid ≥100 µmol/L

24 did not have visit 1 bile acid data

21 did not have visit 1 bile acid data

217 had baseline bile acid data and itch data, itch data from at least one visit post randomisation, including visit 1 (Figure S3)

Figure S3: itch response stratified by baseline bile acid trajectory

206 had baseline bile acid data and itch data, itch data from at least one visit post randomisation, including visit 1 (Figure S3)

Figure S1. Flow diagram of participants. Flow of participants prior to randomisation is described in the original PITCHES analysis (Chappell 2019).
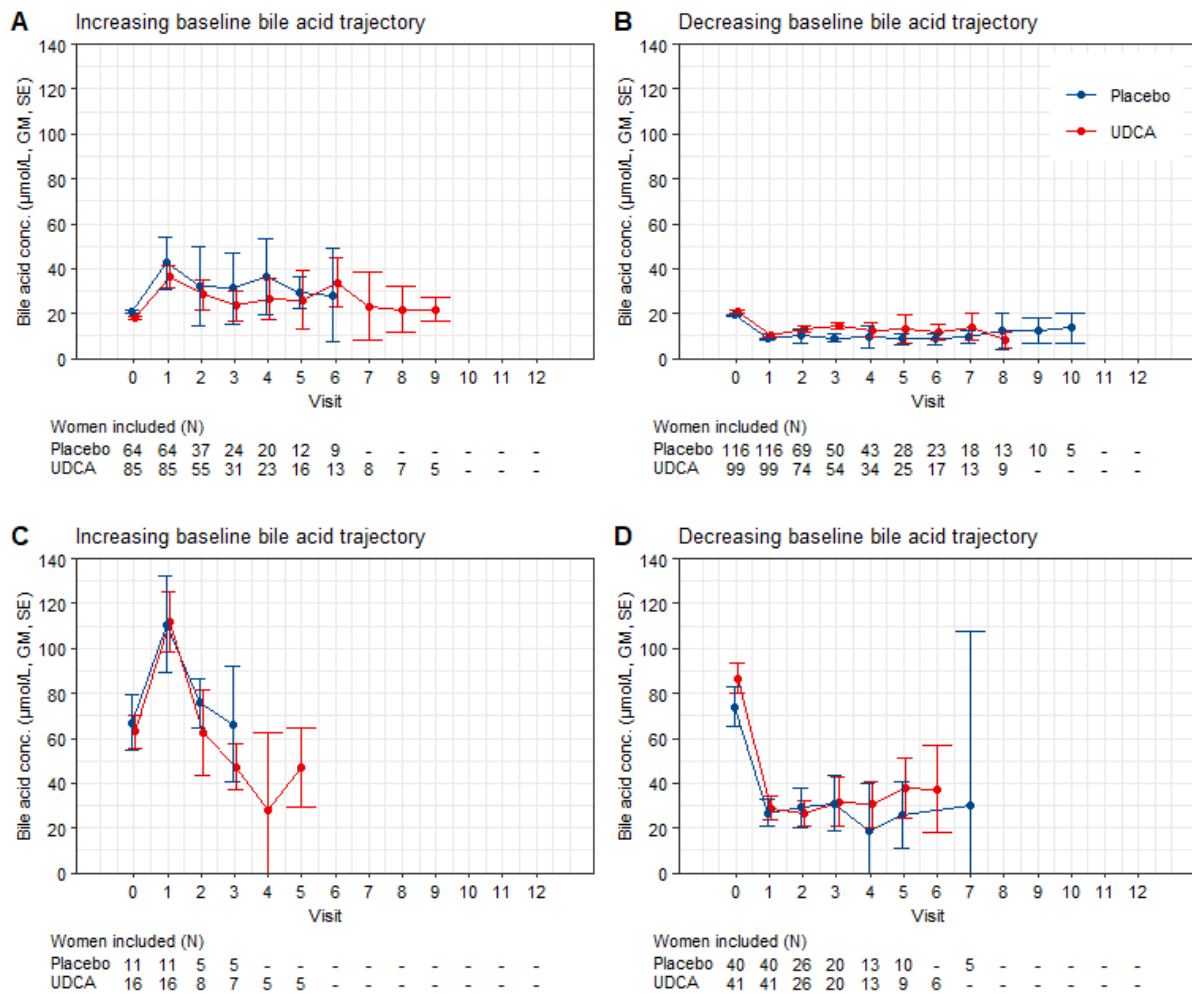
Figure S2. Bile acid concentration stratified by initial bile acid trajectory in women with baseline bile acid concentration <40 µmol/L and ≥40 µmol/L. Changes in bile acid concentration in women with baseline bile acid concentration <40 µmol/L, stratified by initial bile acid trajectory increasing (A) or decreasing (B) and in women with baseline bile acid concentrations ≥40 µmol/L, stratified by initial bile acid trajectory increasing (C) or decreasing (D) by visit post-randomisation. Numbers below each graph refer to number of women contributing results at each point. Only visits with five or more women were included. GM = geometric mean, SE = standard error.
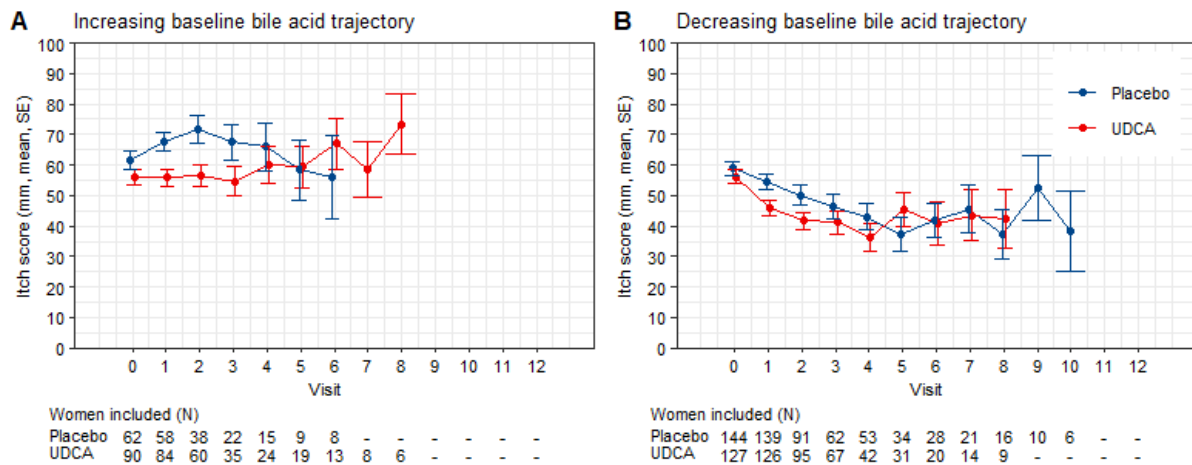
Figure S3. Itch score stratified by initial bile acid trajectory. Changes in itch score by visit post-randomisation, stratified by initial bile acid trajectory increasing (A) or decreasing (B). Numbers below each graph refer to number of women contributing results at each point. Only visits with five or more women were included. GM = geometric mean, SE = standard error.
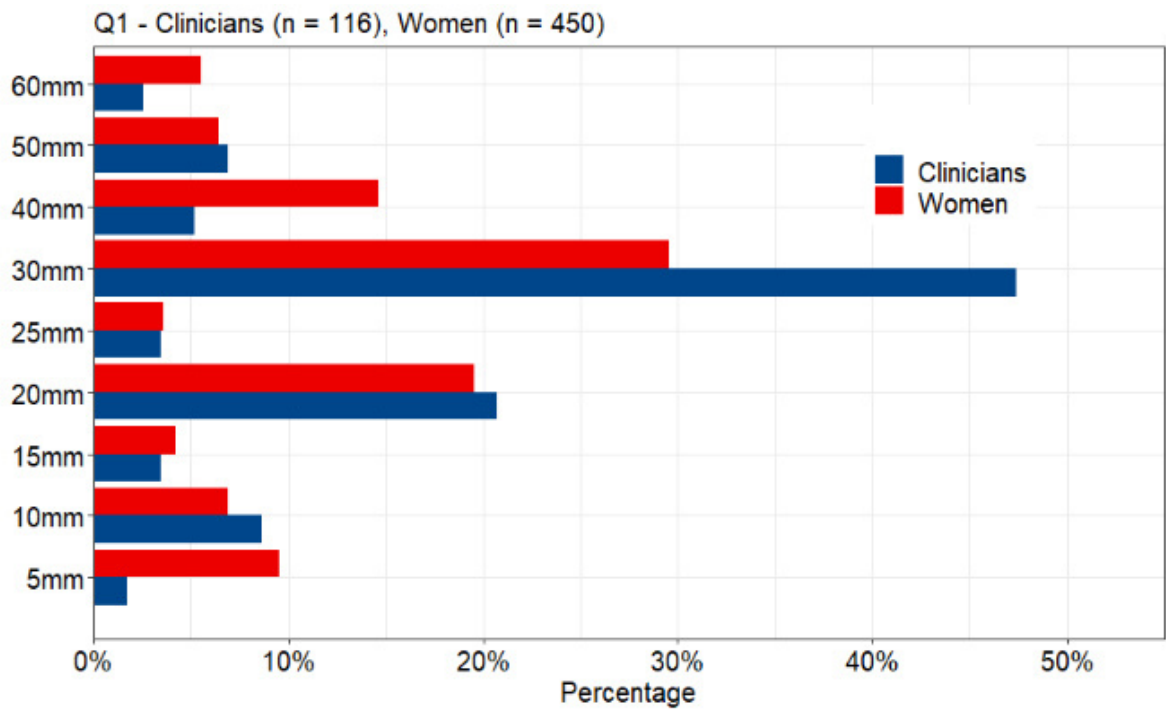
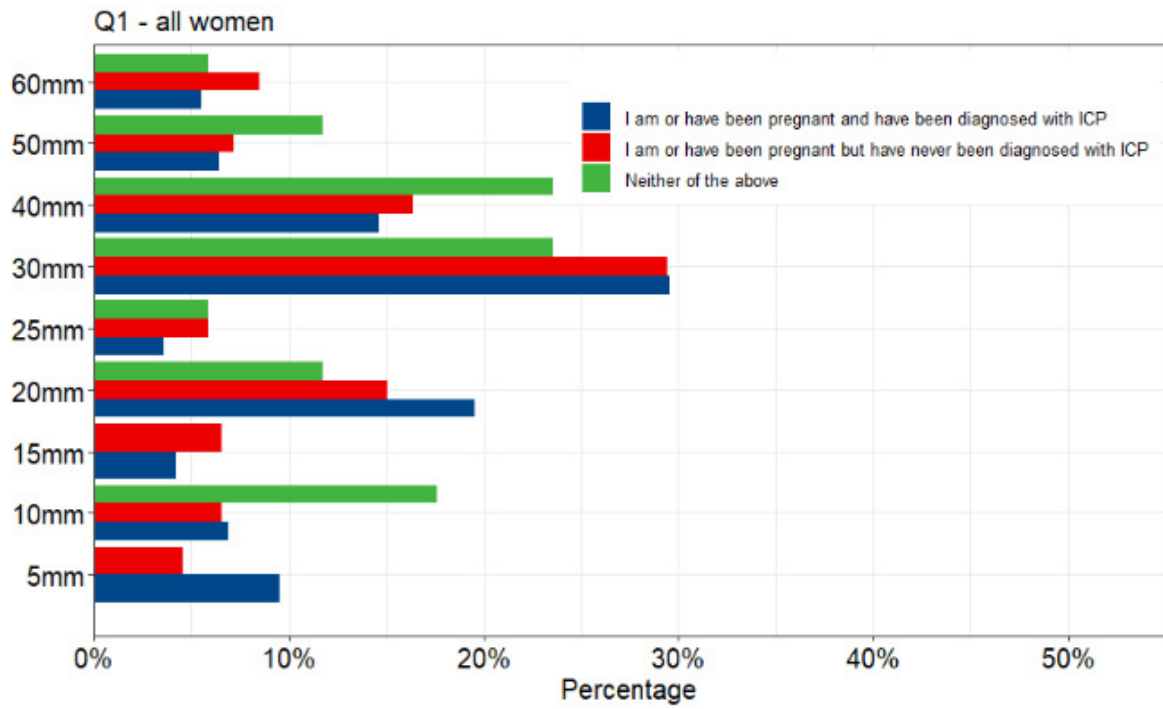**Figure S4.** Results of survey question 1. Women included had prior experience of ICP.

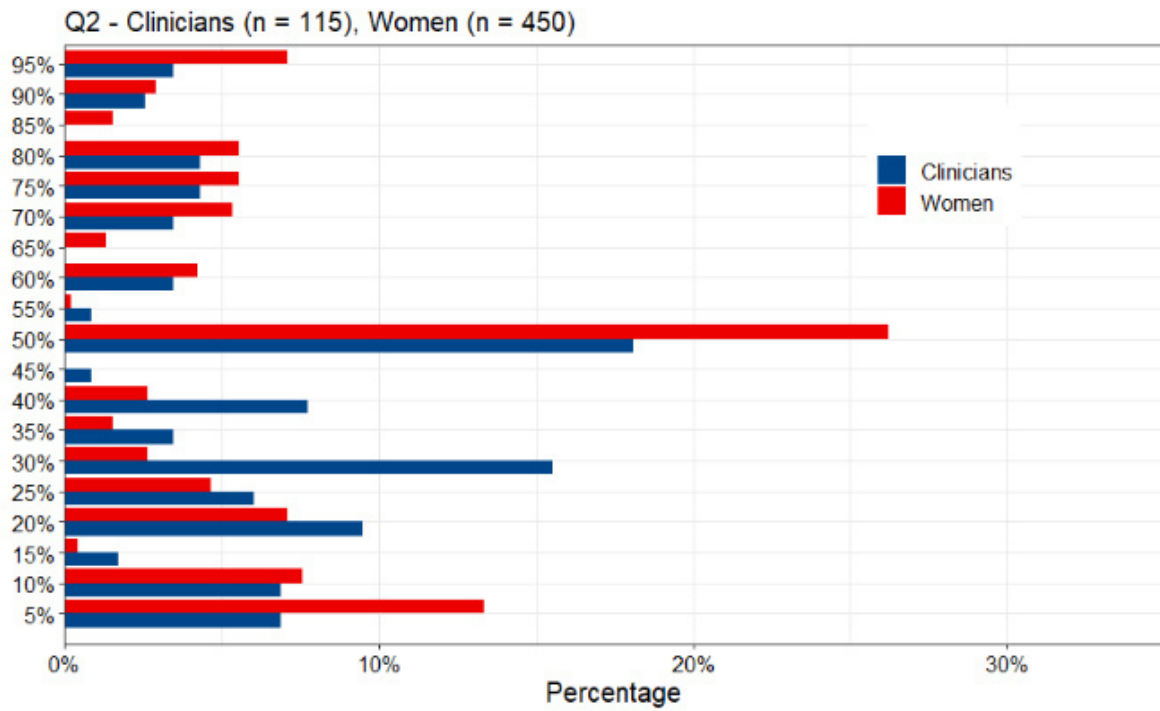**Figure S5.** Results of survey question 1 by previous experience of ICP.

Figure S6. Results of survey question 2. Women included had prior experience of ICP.