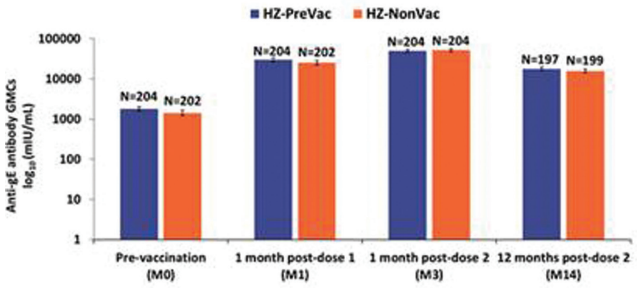
(AEs) were recorded for 7 and 30 days post each dose, respectively. Serious AEs (SAEs), HZ cases and potential immune-mediated diseases (pIMDs) were recorded throughout the study.

***Results.*** 215 participants were vaccinated in each group. No apparent differences, in pre-vaccination and persistence values of the anti-gE antibody GMCs (Figure 1) and CD4[2+] T-cell frequencies (Figure 2) were observed between HZ-PreVac and HZ-NonVac, up to M14. No clinically relevant differences in frequencies of solicited AEs, unsolicited AEs or SAEs between the two groups were observed. Six pIMDs (two in HZ-PreVac group and four in HZ-NonVac group), were reported up to M14 (Table 1).

***Conclusion.*** In both groups, RZV-induced humoral and cellular immune responses persisted above baseline up to M14 at similar levels, irrespective of previous ZVL administration. Safety profile was similar regardless of previous ZVL vaccination.

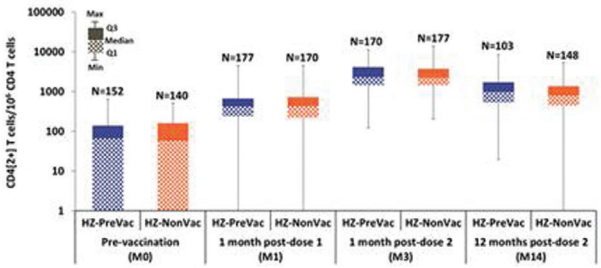
Funding: GlaxoSmithKline Biologicals SA.

**Figure 1.** Anti-gE antibody geometric means concentrations (adapted ATP cohort for immunogenicity) prior to and following RZV vaccination




**gE**, glycoprotein E; **ATP**, according-to-protocol; **GMCs**, geometric mean concentrations; **HZ-PreVac**, participants ≥65 YOA vaccinated with zoster vaccine live (ZVL) ≥5 years earlier; **HZ-NonVac**, participants ≥65 YOA not previously vaccinated with ZVL; **N**, number of participants with available results; **M**, month; **IU**, international unit; **Note**: Adapted ATP cohort for Immunogenicity denotes that for each time point presented, the corresponding ATP cohort for immunogenicity was used.

**Figure 2.** Frequencies of gE-specific CD4[2+] T cells (adapted ATP cohort for immunogenicity) prior to and following RZV vaccination




**gE**, glycoprotein E; **ATP**, according-to-protocol; **CD4[2+] T cells**, CD4+ T cells expressing at least 2 of the 4 activation markers assessed (interferon-γ, interleukin-2, tumor necrosis factor-α, CD40 ligand); **HZ-PreVac**, participants ≥65 YOA vaccinated with zoster vaccine live (ZVL) ≥5 years earlier; **HZ-NonVac**, participants ≥65 YOA not previously vaccinated with ZVL; **N**, number of participants with available results; **Min/Max**, minimum/maximum; **Q1**, Quartile 1 (25th percentile); **Q3**, Quartile 3 (75th percentile); **M**, month; **Note**: Adapted ATP cohort for Immunogenicity denotes that for each time point presented, the corresponding ATP cohort for immunogenicity was used.

**Table 1.** Incidence of solicited and unsolicited AEs, SAEs and pIMDs (Total Vaccinated Cohort)

| AE (overall/ participant) | | Reporting Period | HZ-PreVac | | HZ-NonVac | |
|---|---|---|---|---|---|---|
| | | | N | n (% [95% CI]) | N | n (% [95% CI]) |
| Solicited Local AE | Pain | D0–6 | 215 | 189 (87.9 [82.8–91.9]) | 214 | 181 (84.6 [79.0–89.1]) |
| | Redness | | 215 | 96 (44.7 [37.9–51.6]) | 214 | 73 (34.1 [27.8–40.9]) |
| | Swelling | | 215 | 50 (23.3 [17.8–29.5]) | 214 | 37 (17.3 [12.5–23.0]) |
| Solicited General AE | Fatigue | | 215 | 114 (53.0 [46.1–59.8]) | 214 | 111 (51.9 [45.0–58.7]) |
| | Fever | | 215 | 36 (16.7 [12.0–22.4]) | 214 | 32 (15.0 [10.5–20.4]) |
| | GI | | 215 | 49 (22.8 [17.4–29.0]) | 214 | 38 (17.8 [12.9–23.5]) |
| | Headache | | 215 | 78 (36.3 [29.8–43.1]) | 214 | 89 (41.6 [34.9–48.5]) |
| | Myalgia | | 215 | 81 (37.7 [31.2–44.5]) | 214 | 77 (36.0 [29.6–42.8]) |
| | Shivering | | 215 | 51 (23.7 [18.2–30.0]) | 214 | 37 (17.3 [12.5–23.0]) |
| Unsolicited AE | All | D0–29 | 215 | 81 (37.7 [31.2–44.5]) | 215 | 54 (25.1 [19.5–31.5]) |
| | Related | | 215 | 13 (6.0% [3.3–10.1]) | 215 | 13 (6.0% [3.3–10.1]) |
| SAE* | All | From D0 to study end | 215 | 18 (8.4 [5.0–12.9]) | 215 | 22 (10.2 [6.5–15.1]) |
| pIMD* | All | | 215 | 2 (0.9 [0.1–3.3]) | 215 | 4 (1.9 [0.5–4.7]) |

**AE**, adverse event; **SAE**, serious AE; **pIMD**, potential immune-mediated disease; **HZ-PreVac**, participants ≥65 YOA vaccinated with zoster vaccine live (ZVL) ≥5 years earlier; **HZ-NonVac**, participants ≥65 YOA not previously vaccinated with ZVL; **N**, number of participants with a least one documented (solicited AEs) or administered (unsolicited AEs, SAEs, pIMDs) dose; **n/%**, number/percentage of participants reporting the AE at least once; **95% CI**, exact 95% confidence interval; **GI**, gastrointestinal symptoms (nausea, vomiting, diarrhea and/or abdominal pain); **Fever**, temperature ≥37.5°C for oral, axillary or tympanic route, or ≥38.0°C for rectal route; **D**, day; **D0–6**, 7 days post each dose; **D0–29**, 30 days post each dose; **Related**, AEs assessed by the investigator to be causally related to vaccination; *Up to study end, no SAE and no pIMD were considered causally related to vaccination.

***Disclosures.*** **T. Mrkvan**, GSK: Employee and Shareholder, Salary and shares and share options. **L. Campora**, GSK: Employee and Shareholder, Salary. **G. Catteau**, GSK: Board Member, Salary. **M. Douha**, GSK: Employee, Salary. **K. Grupping**, GSK: Employee, Salary. **C. Herve**, GSK: Employee, Salary. **G. Kalema**, GSK: Consultant, Consulting fee. **T. Heineman**, GSK: Consultant, Employee and Shareholder, Consulting fee and Salary. **N. P. Klein**, GSK: Investigator, Research support. sanofi pasteur: Investigator, Research support. Merck: Investigator, Research support. Pfizer: Investigator, Research support. Protein Science: Investigator, Research support. MedImmune: Investigator, Research support. Dynavax: Investigator, Research support. **H. Lal**, GSK: Shareholder, Salary. Pfizer: Shareholder, Salary. **L. Oostvogels**, GSK: Employee, Salary and stock and stock options. **A. Schuind**, GSK: Employee and Shareholder, Salary.

### 1957. Pharmacist Prescribing and Care in Patients with Uncomplicated Urinary Tract Infections in the Community: Efficacy and Safety Outcomes of the R_xOUTMAP Study

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***Background.*** Pharmacists have the authorization to prescribe medications for the treatment of uncomplicated urinary tract infections (UTI) in some Canadian provinces. However, there is limited data on the outcomes of this care by pharmacists. Our objective was to evaluate the effectiveness, safety, and patient satisfaction with pharmacist prescribing and care in patients with uncomplicated UTI.

***Methods.*** We conducted a prospective registry trial in 39 community pharmacies in the Canadian province of New Brunswick. Adult patients were enrolled if they presented to the pharmacy with either symptoms of UTI with no current antibacterial treatment (Pharmacist-Initial Arm) or if they presented with a prescription for an antibacterial to treat UTI from another healthcare provider (Physician-Initial Arm). Pharmacists assessed patients and if they had complicating factors or red flags for systemic illness or pyelonephritis, they were excluded from the study. Pharmacists either prescribed antibacterial therapy, modified antibacterial therapy, provided education only, or referred to physician, as appropriate. The primary outcome was clinical cure at 2 weeks and the secondary outcomes included adverse events and patient satisfaction.

***Results.*** A total of 748 patients were enrolled (87% in the Pharmacist-Initial Arm), average age was 40.8 (SD 15.9) years. Clinical cure was achieved in 89% of patients. Of those that did not have sustained symptom resolution, most (6% overall) had symptom recurrence after completion of therapy. Adverse events were reported by 7% of patients and 88% of those continued their medication. Most adverse events were gastrointestinal-related and transient. The patient satisfaction survey reflected very high levels of satisfaction for the care they received, as well as for trust and accessibility of the pharmacist.

***Conclusion.*** Pharmacist management of uncomplicated UTI is effective, safe, and patient satisfaction is very high.

***Disclosures.*** **All authors:** No reported disclosures.

### 1958. Antiviral Effects, Pharmacokinetics (PK), and Safety of the Respiratory Syncytial Virus (RSV) Fusion Protein Inhibitor, JNJ-53718678 (JNJ-8678), in RSV-infected Infants With Bronchiolitis, in the Phase 1b Study 53718678RSV1005

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***Background.*** JNJ-8678 is a RSV-specific fusion inhibitor and a potential new treatment for respiratory infections caused by RSV. Data from a Phase 1b study of PK, safety and antiviral effects in hospitalized RSV-infected infants are presented.

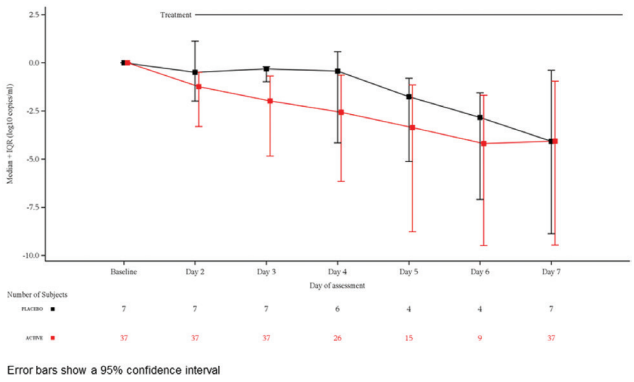
***Methods.*** 37 and 7 patients, respectively, were randomized to JNJ-8678 (ascending doses, Table) or placebo (PBO) treatment once daily for 7 days. PK assessments were based on sparse sampling using a population PK model in adults scaled for pediatrics, accounting for allometric principles and maturation of drug clearance pathways. Safety was evaluated by AE reporting, lab and ECG assessments. Antiviral activity was assessed by measuring viral load (VL) using a quantitative RT-PCR assay for RSV RNA from nasal swabs.

***Results.*** Sparse PK data are described by an integrated PK model (table) and indicated PK parameters for different dose levels were similar across age groups. Treatment

with JNJ-8678 appeared to reduce VL more rapidly than PBO (figure). Median change in VL from baseline (BL) in JNJ-8678-treated patients (combined dose groups) vs. PBO was −1.98 vs. −0.32 $log_{10}$ copies/mL at Day 3. Mean differences in change from BL (90% CI) of JNJ-8678 (combined dose groups) vs. PBO on Days 2 and 3 were estimated −1.33 (−2.26; −0.39) and −1.62 (−2.55; −0.69) $log_{10}$ copies/mL, respectively (general linear model, adjusted for BL VL; $P \leq 0.05$). There was a clear separation between JNJ-8678 and PBO, but no evident exposure–response relationship. JNJ-8678 was generally well tolerated with no new safety signals compared with adults and no dose relationship with AEs or lab abnormalities were observed.

***Conclusion.*** This dataset in RSV-infected infants showed a clear trend for an early antiviral effect of JNJ-8678, which was similar across dose groups. JNJ-8678 treatment was generally well tolerated.

**Fig** Median change from BL VL over 7 days of treatment in RSV-infected infants




Error bars show a 95% confidence interval

**Table:** PK Data by Dose/Age Group

| Dose | Dose (mg/kg) All $n = 4$ | Age (Months) | $AUC_{24}$ Day 7, Mean ± SD | $C_{trough}$ Day 7, Mean ± SD |
|---|---|---|---|---|
| Low | 1 | 1–3 | 5,121 ± 471 | 87 ± 16 |
| | 1.5 | 3–6 | 6,236 ± 578 | 83 ± 18 |
| | 2 | 6–24 | 5,631 ± 605 | 39 ± 14 |
| Mid | 3 | 1–3 | 17,867 ± 1,747 | 345 ± 64 |
| | 4.5 | 3–6 | 21,965 ± 2,147 | 346 ± 73 |
| | 6 | 6–24 | 19,693 ± 2,213 | 170 ± 60 |
| Intermediate | 8 | 6–24 | 27,454 ± 3,108 | 256 ± 88 |
| High | 5 | 1–3 | 32,478 ± 3,194 | 675 ± 120 |
| | 6 | 3–6 | 30,722 ± 3,015 | 510 ± 105 |
| | 9 | 6–24 | 31,445 ± 3,565 | 303 ± 103 |

***Disclosures.*** **F. Martinon-Torres**, Pfizer: Consultant, Consulting fee. SPMSD: Consultant, Consulting fee. GSK: Consultant, Consulting fee. **S. Rusch**, Janssen: Employee and Shareholder, Salary. **D. Huntjens**, Janssen: Employee and Shareholder, Salary. **B. Remmerie**, Janssen: Employee and Shareholder, Salary. **J. Vingerhoets**, Janssen: Employee and Shareholder, Salary. **K. McFadyen**, Janssen: Employee and Shareholder, Salary. **E. Baraldi**, Abbvie: Lectures, Speaker honorarium. Chiesi Farmaceutici: Consultant, Consulting fee. Novartis: Consultant, Consulting fee. Janssen: Consultant, Consulting fee. **M. Stevens**, Janssen: Employee and Shareholder, Salary.

**1959. Ceftriaxone-Sulbactam-EDTA (CSE) vs. Meropenem (MR) in PLEA (a Phase 3, Randomized, Double-Blind Trial): Outcomes in Patients Infected With Ceftriaxone Non-Susceptible, Extended-Spectrum β-Lactamase and Multi-Drug-resistant Pathogens at Baseline**

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***Background.*** CSE, a novel combination of Ceftriaxone, Sulbactam and Disodium EDTA (Class 1 Antibiotic Resistance Breaker), is being developed for the treatment of patients with serious Gram-negative infections and has completed a Phase-3 clinical trial (NCT03477422) for treatment of complicated urinary tract infections (cUTI), including acute pyelonephritis (AP). It restores and enhances the *in vitro* activity of Ceftriaxone against various β-lactamases (BLs), including enzyme families that belong to Ambler class A (TEM, SHV, CTX-M), class B (NDM, VIM, IMP), class C (some variants of AmpC), and class D {OXA extended spectrum BLs (ESBLs)}. This analysis was performed to assess the clinical and microbiological outcomes in patients infected with Ceftriaxone non-susceptible (C-NS), MDR and ESBL-producing Gram-negative pathogens at baseline.

***Methods.*** Patients were randomized 1:1 to receive either CSE (1g Ceftriaxone/500 mg Sulbactam/37 mg EDTA) every 12 hours or Meropenem (MR) 1 g every 8 hours as 30 minutes IV infusion for 5–14 days. Oral step-down therapy was not allowed. Biological specimens were analyzed, and resistant pathogens identified. MDR was defined as resistance to at least three categories of antimicrobials. Identification of pathogens and antibiotic susceptibility testing were performed and interpreted according to Clinical and Laboratory Standards Institute methodologies. Combined Disc Diffusion Test was used to detect ESBL-production in pathogens.

***Results.*** Of 230 randomized patients, 143 (62.2%) were included in m-MITT [72/74 (97.3) in CSE and 68/69 (98.6%) in MR groups had C-NS pathogens; 63/74 (85.1%) in CSE and 56/69 (81.2%) in MR groups had ESBL-producing pathogens; 55/74 (74.3%) in CSE and 45/69 (65.2%) in MR group had MDR pathogens]. Mean duration of IV therapy was 7 days. The clinical cure and microbiological eradication rates for CSE and MR at the test of cure (TOC) visit in C-NS, ESBL and MDR pathogens is shown in Figures 1, 2, and 3, respectively.

***Conclusion.*** At TOC, clinical cure and microbiological eradication rates were higher for CSE as compared with MR across all three analyses sets. Overall, CSE was effective in the treatment of patients with cUTI and AP caused by resistant Gram-negative pathogens.

**Figure 1: Outcomes in Ceftriaxone Non-Susceptible Pathogens**

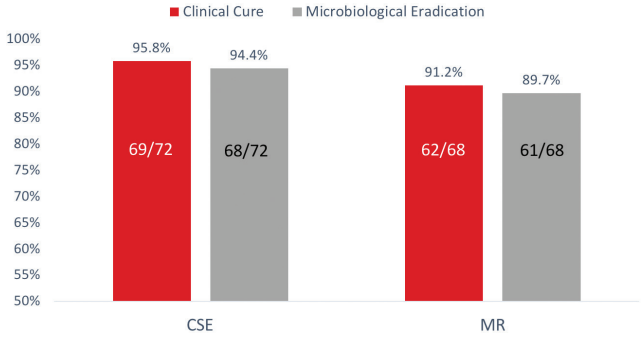


**Figure 2: Outcomes in ESBL-Positive Pathogens**

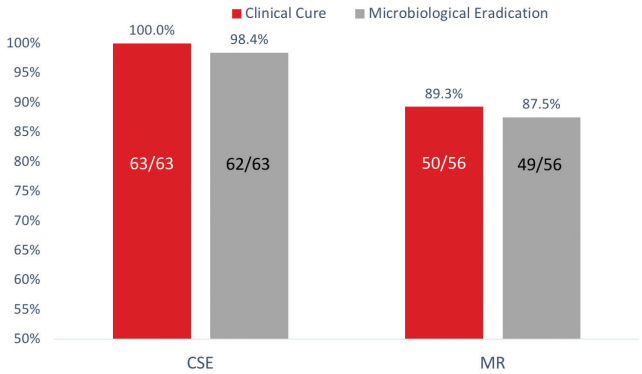


**Figure 3: Outcomes in MDR Pathogens**