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Treatment Patterns, Healthcare Resource Utilization (HCRU), and Direct Costs for Bacterial Vaginosis (BV) in US Commercially Insured Populations

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Background & Objective

- BV is a common vaginal infection with a prevalence of 29% among US women ages 14-49 years.[1]
- More than 50% of patients have recurrent BV within 6-12 months of initial treatment.[2,4]
- This study summarized patient characteristics, treatment patterns, HCRU, and costs among commerical insured patients diagnosed with BV.

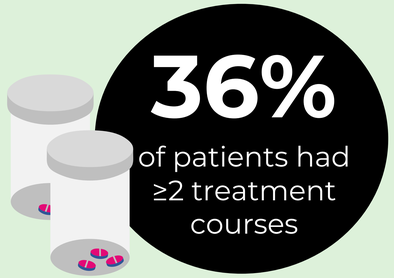
Study Design & Methods

- Retrospective cohort study using the Merative™ MarketScan® Commercial Database.
- Patients were 12-49 years old with an incident BV diagnosis (ICD-10: N76.0 or N76.1 "vaginitis") from 01 JAN 2017 through 30 SEP 2020 and ≥1 BV med (metronidazole, clindamycin, secnidazole, tinidazole).
- Baseline and follow-up periods were one year before and after incident diagnosis, respectively.
- Recurrent BV was defined as ≥2 treatment courses.
- Analyses included descriptive statistics, generalized linear model with gamma distribution (cost), and Poisson regression (treatment courses) using SAS.
- Models included: geographic region, age group, pregnancy status, preterm labor, post procedural gynecological infection, pelvic inflammatory disease, any sexually transmitted infection, female infertility, and Charlson Comorbidity Index*.

*Includes myocardial infarction, congestive heart failure, peripheral vascular disease, cerebrovascular disease, dementia, chronic pulmonary disease, connective tissue-rheumatic disease, peptic ulcer disease, mild liver disease, diabetes w/o complications, diabetes w/ complications, paraplegia and hemiplegia, renal disease, cancer, moderate or severe liver disease, metastatic carcinoma.

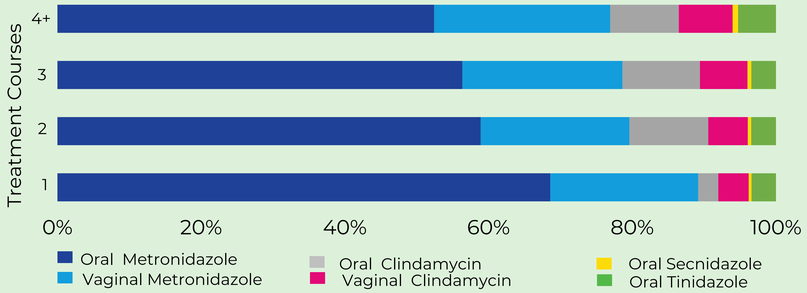
Baseline Population Demographics

- **140,826** with incident BV
- **55%** US South Region
- **13%** BV-associated complication
- **11%** Charlson Comorbidity Index ≥1
- **3%** Pregnant at baseline



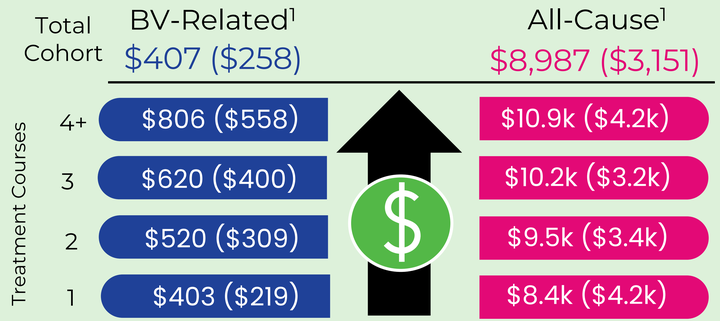
Use of vaginal clindamycin increased among patients with **more treatment courses.**

Figure 1. BV Treatment Patterns by Treatment Course[1]



[1]During 1 year follow-up period

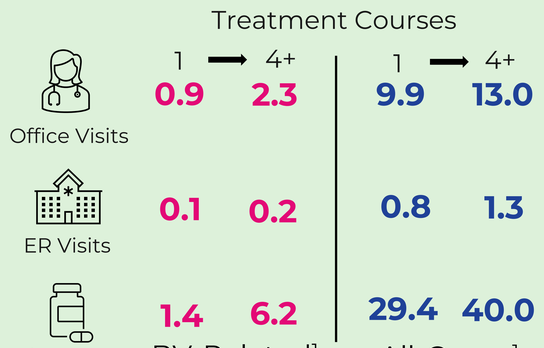
Figure 2. Cost Per Patient Per Year (PPPY)



[1] Cost presented as Mean (Median)
Cost calculations between abstract submission and poster development were updated to include patients with $0 cost.

BV-related & **all-cause costs** were **significantly higher** for patients with **recurrent BV**.

Figure 3. Average HCRU Claims[1]



[1] Claims presented PPPY

Predictors of Cost & Recurrent BV+

- Having a comorbidity (CCI = ≥1), female infertility, and post procedural gynecological infection at baseline increased average costs from $13k-14.5k U.S dollars.
- Top predictors of more treatment courses at baseline:
  - having any STI (Rate Ratio [95% CI]): 1.06 [1.05-1.08];
  - 30-39 years: 1.06 [1.03-1.08];
  - 18-29 years: 1.06 [1.04-1.08];
  - 40-49 years: 1.04 [1.01-1.06]);
  - gynecological procedure infection: 1.05 [1.00-1.09]

Key Assumptions & Limitations

- Patients with non-bacterial vaginitis who received BV medication may have been included.
- Data reflect treatment dispensed from pharmacy claims, and not real-world compliance which is variable. We did not assess use of over-the-counter BV drugs or behavioral factors.
- Findings are not generalizable to patients with non-commercial insurance.

Conclusions

- Recurrent BV significantly ($p < 0.01$) increased costs at follow-up.
- Patients with more treatment courses used more HCRU for any cause.
- Baseline comorbidities significantly predicted ($p < 0.01$) increased cost and treatment courses.
- Providers should consider switching treatment earlier for patients over age 18 with BV-associated sequelae at baseline.

Disclosure & References

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