

Impact of insurance status on treatment choice and hospitalization rates in bullous pemphigoid patients: a retrospective cross-sectional analysis

Holt A,^{1,2,#} Xiang DH,^{3,#} Thompson BB,³ Ebriani J,^{2,4} Brumbaugh BJ,^{2,3} Reardon RM,³ Chen ST^{2,3}

1. University of Massachusetts Chan Medical School, Worcester, MA; 2. Department of Dermatology, Massachusetts General Hospital, Boston, MA; 3. Harvard Medical School, Boston, MA; 4. David Geffen School of Medicine at UCLA, Los Angeles, CA
#Equal contribution

Introduction

- Bullous pemphigoid (BP) is an autoimmune blistering disease managed with a range of therapies and associated with significant morbidity.¹
- Prior literature has suggested that publicly insured patients may be less likely to receive therapies adhering to the standard of care compared to those with private insurance.^{2,3}
- Other studies have indicated that among BP patients specifically, those admitted to the hospital for management are more likely to be insured with Medicare or Medicaid than with private insurance.⁴
- Some medications commonly prescribed for BP management, such as rituximab and dupilumab, are expensive. These may be cost-prohibitive for patients depending on insurance coverage.

Objectives

- To investigate whether BP treatment choice differs by insurance status among patients treated at a large academic medical center
- To evaluate whether hospitalization rates for the management of BP varies based on insurance status

Methods

- This was a retrospective cross-sectional analysis including 175 patients treated for BP from 4/1/16 to 8/3/22.
- Variables examined included patient characteristics, hospitalization history, and BP therapy selection.
- Statistical analysis was performed in R version 4.1.0. Fisher's exact test and the Mann-Whitney U test were used for comparison across groups.

Results

	Public Insurance (N=122)	Private Insurance (N=53)	Total (N=175)
Sex, n (%)			
Female	64 (52.5)	21 (39.6)	85 (48.6)
Male	58 (47.5)	32 (60.4)	90 (51.4)
Age at BP diagnosis			
Median [Min, Max]	78 [32, 101]	74 [19, 95]	77 [19, 101]
Race, n (%)			
Asian	3 (2.5)	3 (5.7)	6 (3.4)
Black or African American	1 (0.8)	5 (9.4)	6 (3.4)
White	115 (94.3)	38 (71.7)	153 (87.4)
Not Reported	3 (2.5)	7 (13.2)	10 (5.7)
Ethnicity, n (%)			
Hispanic, Latino, or Spanish origin	2 (1.6)	1 (1.9)	3 (1.7)
Not of Hispanic, Latino, or Spanish origin	109 (89.3)	45 (84.9)	154 (88.0)
Not reported	11 (9.0)	7 (13.2)	18 (10.3)

Table 1. Baseline participant characteristics.

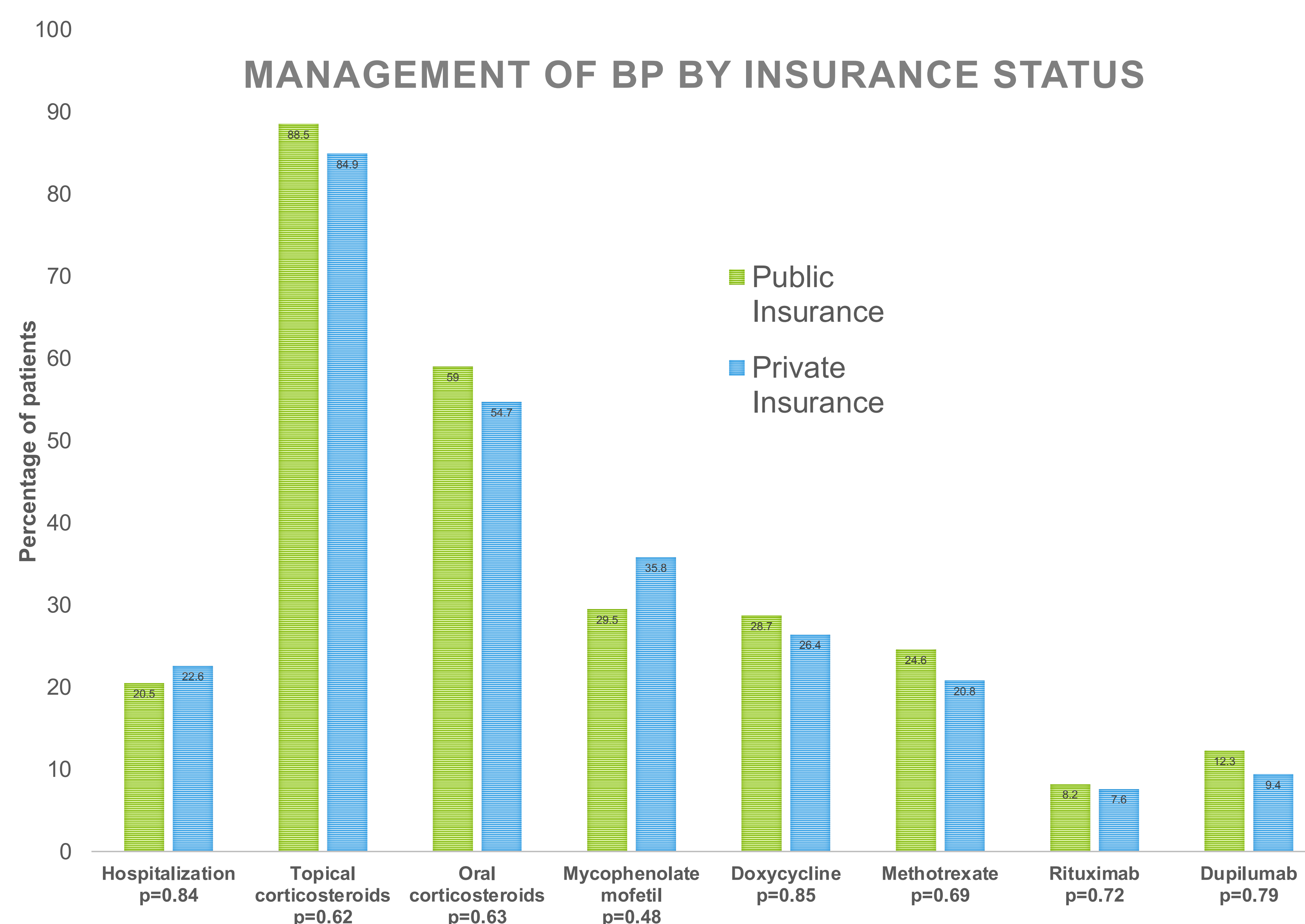


Figure 1. Hospitalization and treatment history among BP patients. Top five most frequently prescribed medications are shown, in addition to rituximab and dupilumab.

Results (con't)

- 122 patients with public insurance and 53 with private insurance were included for analysis (Table 1).
- No significant difference in hospitalization rate between groups: 20.5% of patients with public insurance were hospitalized for BP compared with 22.6% of those with private insurance (p=0.84, Figure 1).
- Top 5 most prescribed therapies are shown in Figure 1: topical corticosteroids (88.5% public vs 84.9% private), oral corticosteroids (59% vs 54.7%), mycophenolate mofetil (29.5% vs 35.8%), doxycycline (28.7% vs 26.4%), and methotrexate (24.6% vs 20.8%). No difference was identified between groups.
- No difference in expensive therapies between groups: 8.2% of those with public insurance received rituximab compared to 7.6% with private; 12.3% and 9.4%, respectively, for dupilumab (Figure 1).

Conclusions

- No significant association between insurance status and treatment choice was identified, even for costly therapies (e.g. rituximab and dupilumab).
- Similarly, no significant association was found between insurance status and hospitalization rates for BP management.
- This study had several limitations: retrospective design, relatively small cohort size, and limited generalizability as most patients were white and primarily English-speaking. Additionally, this study was conducted in Massachusetts, which offers strong public insurance.

Future Directions

- Future studies should investigate whether these findings can be replicated in different demographic groups and communities across the United States, as public insurance plans may vary significantly between states.

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