

# Reconciliation of problem lists at the internal medicine ambulatory care clinic



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## Introduction

Lawrence Weed in his article “Medical Records that Guide and Teach” [1] first introduced the concept of electronic problem lists, which have since been universally implemented in nearly all EMR systems. Problem lists are central to patient management and care as they become the basis for assessment and formulation of personalized care plans for patients [2]. Despite the importance of maintaining accurate problem lists, their quality in EMRs frequently remains sub-optimal and out-of-date [3,4].

## Objective

In this project, our aim was to retrospectively review patients’ charts to assess reconciliation of problem lists in the outpatient internal medicine clinic. Moreover, we tried to identify factors that may be potentially implicated in the quality of problem list reconciliation.

## Methods

After obtaining IRB approval, hospital charts of patients attending the medicine resident clinic at the Ambulatory Care Center of University Hospital between 7/1/2019 and 6/30/2020 were retrospectively reviewed. Patients who had at least three different problems were eligible for inclusion. Data pertaining to demographics, PGY level, number of problems, time of appointment, and accuracy of problem list reconciliation were recorded.

## References

1. L.L. Weed. Medical records that guide and teach. *N. Engl. J. Med.* 1968; **278**: 593–600.
2. A. Wright, E.A. McGlinchey, E.G. Poon, C.A. Jenter, D.W. Bates, S.R. Simon. Ability to generate patient registries among practices with and without electronic health records. *J. Med. Internet Res.* 2009; **11**: e31.
3. D. Blumenthal, M. Tavenner. The meaningful use regulation for electronic health records. *N. Engl. J. Med.* 2010; **363**: 501–504.
4. D.M. Hartung, J. Hunt, J. Siemenczuk, H. Miller, D.R. Touchette. Clinical implications of an accurate problem list on heart failure treatment. *J. Gen.Intern. Med.* 2005; **20**: 143–147.

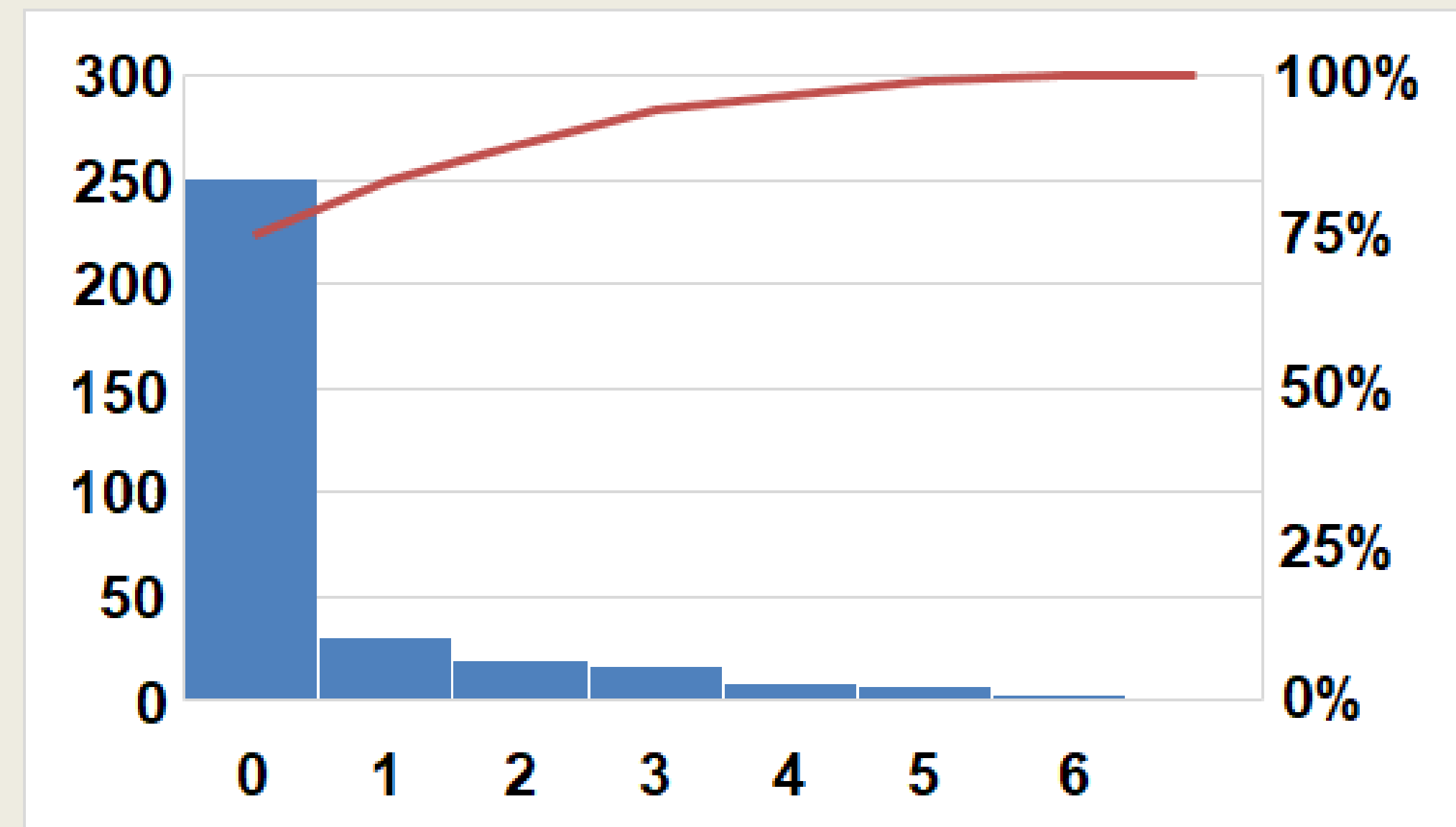


Figure 1: Number of problems missing in EMR problem list

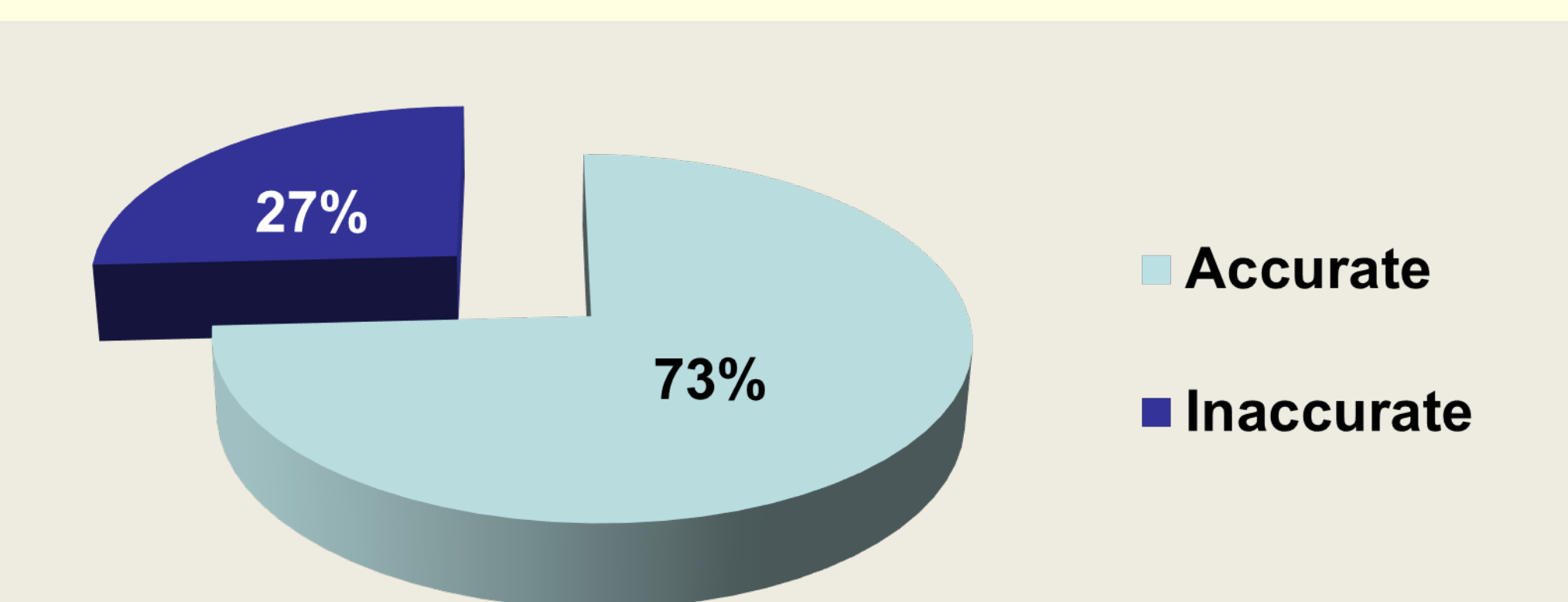


Figure 2: Accuracy of problem list reconciliation by residents

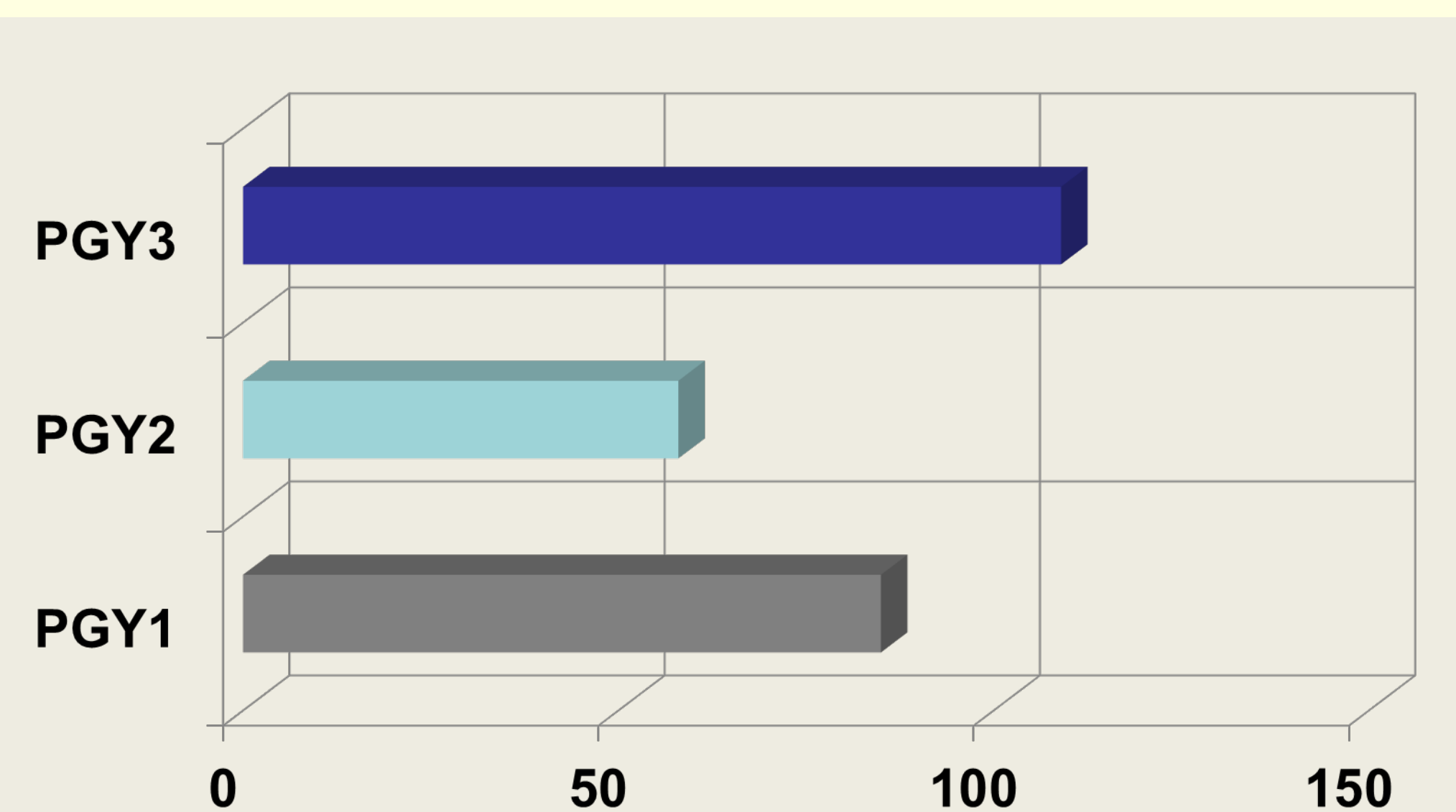


Figure 3: Accurate problem list reconciliation by PGY level

## Results

A total of 337 patients (186 women) were included in the analysis with a median age of 65 (IQR: 58–72) years. About a quarter of patients (25.2%) had no insurance, while another 17.2% relied on charity care. Nearly half of all patients (48.7%) required the use of language interpreters. The median number of problems per patient was 5 (IQR: 4–6). Problem list reconciliation was accurately performed in 250 (74.2%) visits by PGY1 (n=83), PGY2 (n=58) and PGY3 (n=109) residents respectively.

## Discussion

- Accuracy of problem lists is tantamount to better quality patient care and maintenance of patient registries.
- A community-based cross-sectional study showed that accurate problem list reconciliation among heart failure patients was associated with a higher likelihood of being prescribed appropriate goal-directed medical therapy [4].
- In our study, omissions in problem list reconciliation were more frequent at initial visits, when provider was PGY2, and when patient required language interpretation.
- Our study showed that at 74% of visits, residents were reconciling problem lists accurately.
- Although our results were encouraging, we only reviewed data from resident-based internal medicine clinics. These findings may or may not be generalizable to other ambulatory care or in-patient settings; therefore, further studies are warranted.