

Real World Evidence on Effectiveness of Clinical Decision Support System (CDSS) Alerts on General Practitioners (GPs) Adherence to the New GORD Treatment Guidelines in German Primary Care Settings

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OBJECTIVES

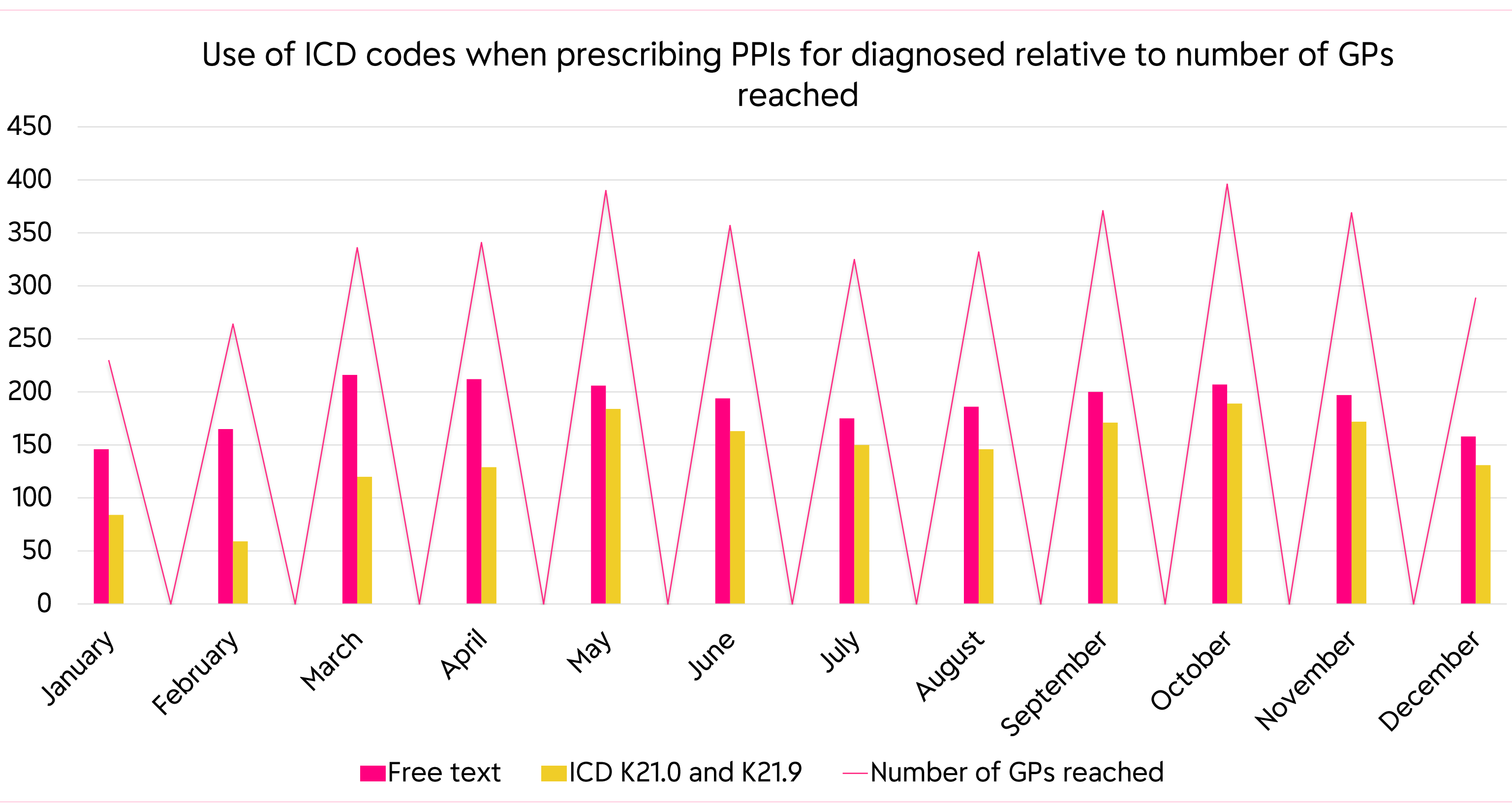
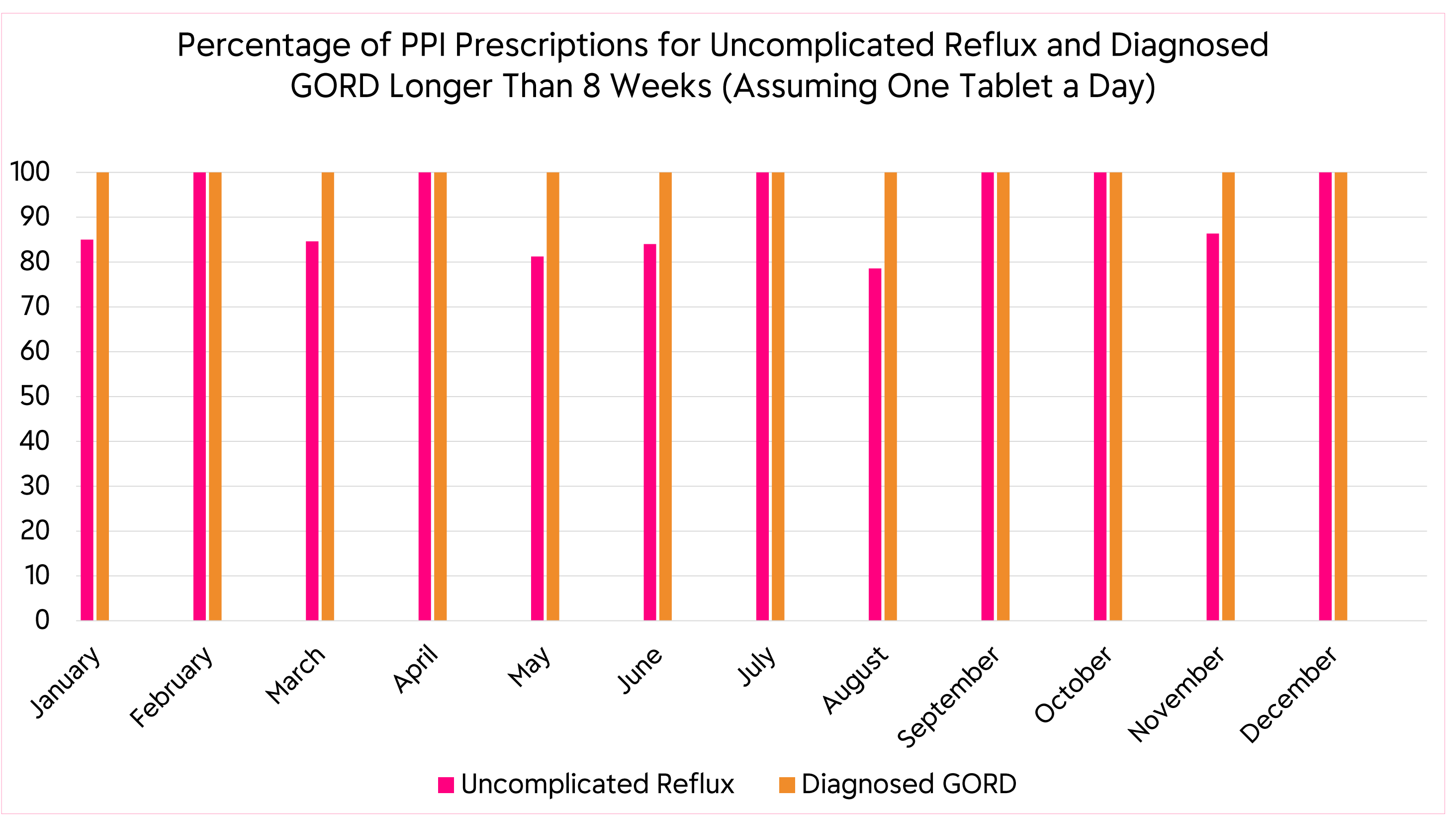
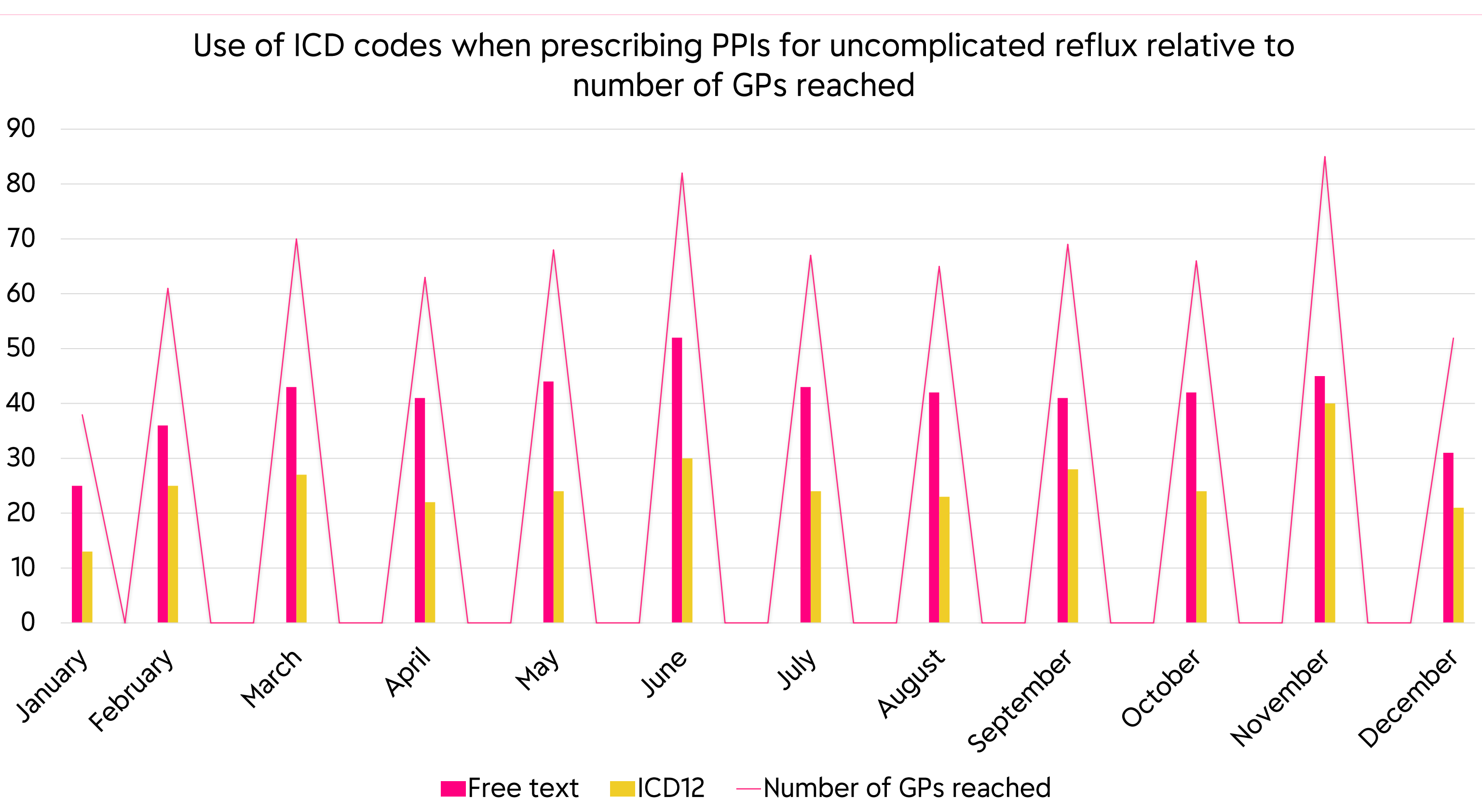
- Inappropriate proton pump inhibitors (PPI) prescription is prevalent in management of several gastrointestinal (GI) conditions.
- As a step towards preventing this issue, the German Society for Gastroenterology, Digestive and Metabolic Diseases (DGVS) issued a guideline on management of mild gastro-oesophageal reflux disease (GORD) recommending limited use of PPIs to 4-8 weeks, reduced dosage, or switching to alternative therapies.
- There has been increased use of integrated Clinical Decision Support System (CDSS) in healthcare to improve patient outcomes and enhance efficiency through provision of evidence-based recommendations to clinicians.
- Efficacy of CDSS in encouraging adherence to guidelines has previously been established.
- This study aims to assess the impact of CDSS alerts on the implementation of new treatment guidelines at the point of prescription in Germany's primary care settings

METHODS

- Artificial intelligence and machine learning tools were used in identification and delivery of patient specific messages.
- Patients were identified based on their diagnosis and prescription history with trigger for delivery patient specific messages were based on criteria such as GI ICD diagnosis codes, previous PPI prescriptions, symptoms, referrals etc
- Based on defined trigger criteria , short alert message was triggered and displayed to the physician at the point of care over 12 months
- Alerts included short messages on the latest guideline, and peer-reviewed publications around appropriate PPI use.
- Study included 54% of primary care practices in Germany using CDSS.
- Data analysis was conducted for uncomplicated reflux and diagnosed GORD to determine changes in uncoded diagnosis and prescription numbers (pack sizes and dosage).

RESULTS

- Analysis revealed that less than 50% of the patients per physician had a documented coded diagnosis justifying PPI use, with ratio 0.34-0.47 patients per GP.
- The low ratio of documented diagnoses supporting PPI use indicates a gap in diagnostic coding and/or adherence to guidelines
- For diagnosed GORD, an average of 47 more GPs, of 333 alerted, prescribed PPIs without an indicated diagnosis (95%CI: 19.7-74.3; P<0.0017), while 15 more, of 66 alerted, prescribed PPIs for uncomplicated reflux (95%CI: 9.7-20.10; P<0.001).
- PPIs were frequently prescribed in large pack sizes lasting more than three months, with 86% of prescriptions for uncomplicated reflux & 100% for diagnosed GORD



CONCLUSION

- Findings suggest that CDSS alerts had **no significant impact** on the adherence to new GORD guidelines and minor changes to prescription patterns.
- Studies have shown that coding documentation is a predominant issue driving inappropriate PPI prescribing which was also observed in our findings
- To achieve improvement in appropriate PPI prescribing, there is the need for continuous, multidimensional improvement strategies.

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