Clinical Audit Report as preliminary step for Quality Improvement Project on Prescribing Proton Pump Inhibitors for appropriate indications in West Bay Health Center

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Abstract

Background: Proton Pump Inhibitors are largely prescribed to the patients in West Bay health center, Primary Health Care, Doha, Qatar. Patients often continue therapy for extended durations without an end point. Studies have found that up to 70 percent of PPI use is for unapproved indications. Long-term PPI use has been associated with an increased risk of all-cause mortality in two cohorts of institutionalized older persons. The aim of this audit intended to evaluate current practice of PPIs prescriptions against best practice international guidelines and suggest changes for improvement.

Methods: 50 medical records were identified by simple random sampling from a total of 2,021 patient's health records who had been prescribed PPI during the audit period from 1st October to December 2019 and who were reviewed retrospectively based on the audit criteria.

Results: Findings showed PPIs were prescribed for justified indications in 24/50 (49%) health records. 26/50(51%) cases of PPIs prescriptions were found for unjustified clinical indications. PPIs doses for justified indications were also found suitable in 24/24 (100) health records. However, duration of prescribing PIs according to its specific indication were found suitable in 9/24 (37.5%) health records.

PPIs stop date was not documented in 41/50 (82%) health records but it was documented in 9/50 (18%) health records in West Bay Health Center, PHCC-Doha, Qatar

Conclusion: The findings showed partial compliance to the best practice international guideline for prescribing PPIs to patients for justified indications and in suitable doses, but low compliance was found regarding the duration of prescribing PPIs specifically for various justified indications. Stop date of PPIs was hardly documented in 18% of health records.

Key words: Proton Pump Inhibitors, prescribing, quality improvement

Methods

This was a retrospective review of health records of patients who had been prescribed PPIs.

Inclusion Criteria:
Patients on PPIs who are above 18 years old; Both genders; Qatari and Non-Qatari.

Exclusion criteria:
Pregnant women and children below 18 years.

Sample size
50 medical records were identified by simple random sampling from total of 2021 patient' s health records who had been prescribed PPI during the audit period from 1st October to December 2019.

Data Source:
Electronic medical records (CERNER)

Audit Tool:
An Excel based audit tool was developed based on audit criteria with assistance of Clinical Audit Team in Corporate Office.

It included fields for data on age, gender, nationality, diagnosis, justified indications, dose, stop date duration of PPIs treatment.

Data Analysis:
Data was analyzed using the Excel program-based audit criteria; simple percentages, and proportion were calculated for interpretation of the findings.

Limitations

Number of reviewed medical records is low. Generalization of results for all health centers cannot be justified.

Indicators

Criterion 1: Physician must consider for following indication for prescribing PPIs:

- Peptic ulcer disease
- H Pylori infection
- Gastroesophageal reflux
- NSAIDs associated ulcers
- Zollinger Ellison Syndrome.

Criterion 2: PPIs should be prescribed for lowest dose and duration appropriate to diagnosis given:

- Duodenal ulcer 4-8 weeks
- Gastric ulcer 8-12 weeks
- Gastroesophageal Reflux 8 weeks

Results

Figure 1: Gender distribution of sampled patients on PPIs ; It shows that 48% are females and 52% are males

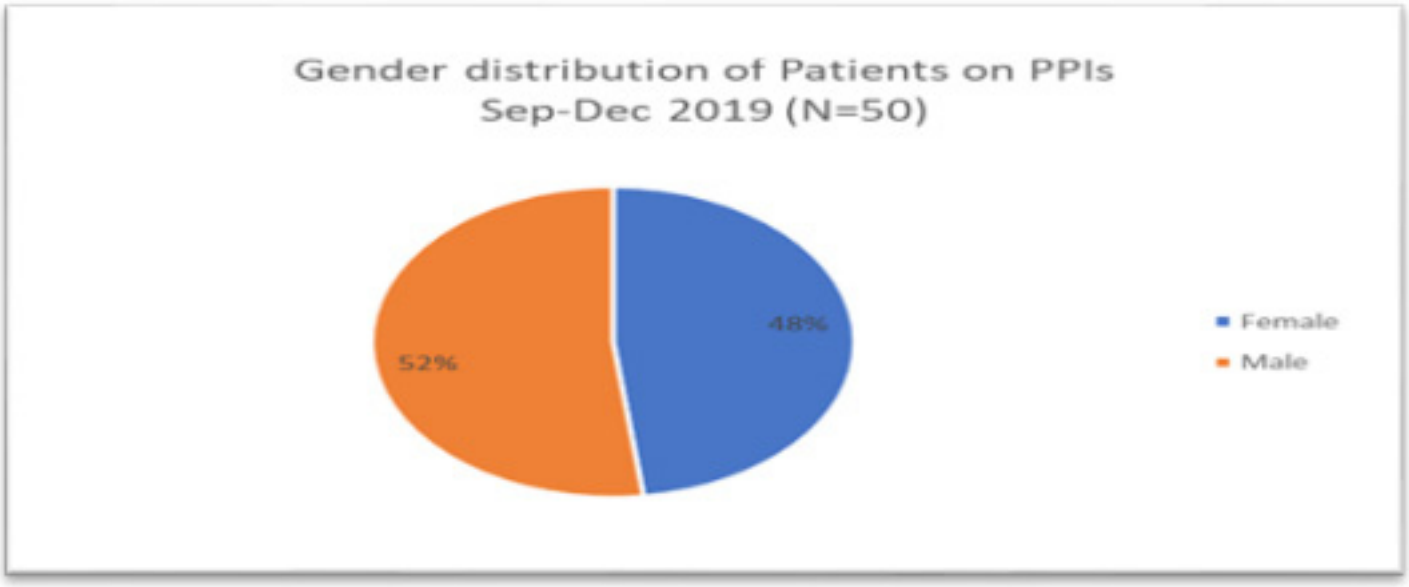


Figure 2: Age distribution of patients on PPIs : it shows most patients lie between 25-36 years and 57-63 years

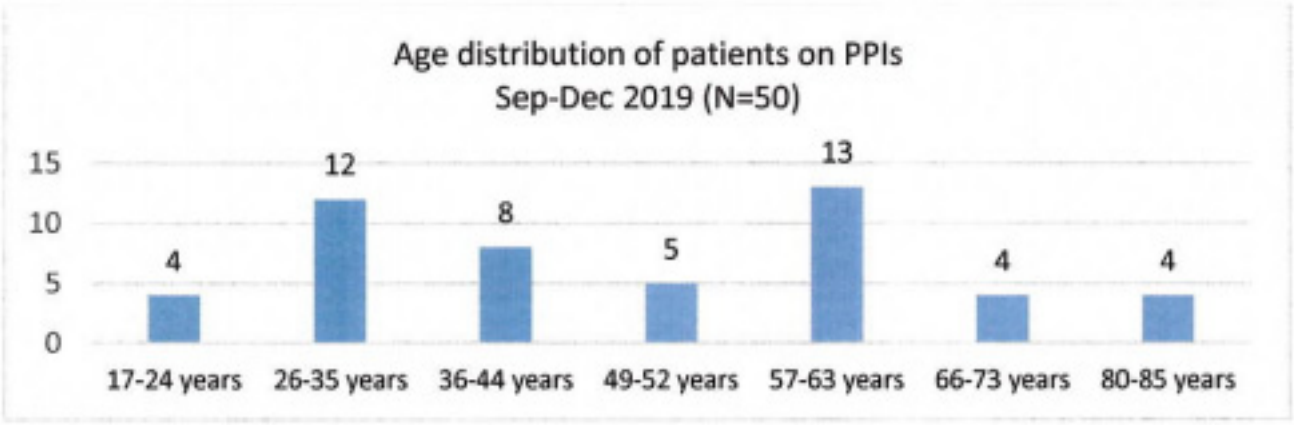


Figure 3: Nationality of patients on PPIs. It depicts distribution of PPI prescriptions according to nationality of patients. 30% of patients included in the sample size were Qatari citizens.

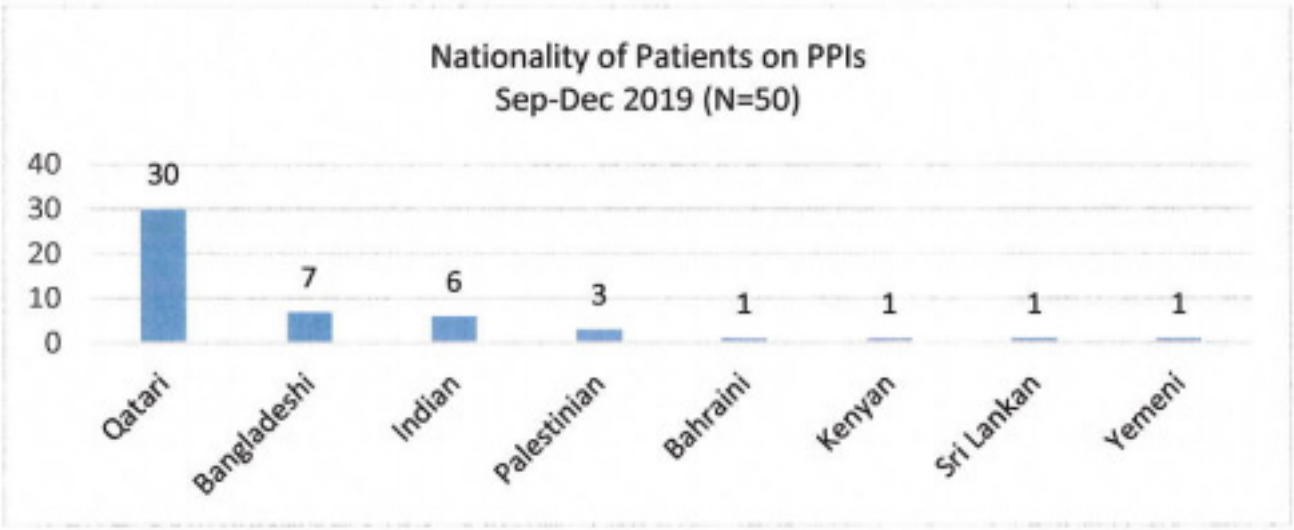


Figure 4: Documented Evidence of justified indications for PPIs (n=50) : it presents that 24/50 (48%) health records had documented justified indications for prescribing PPIs and in 16/24 (66%) cases it was prescribed for peptic ulcer diseases and in 7/24 (29%) the PPIs were given for GERO and in just in one patient it was given for H.Pylori infection. Evidence documented in 26/50 (51%) showed the indications for PPIs prescriptions were not justified as per the best practice international guideline.

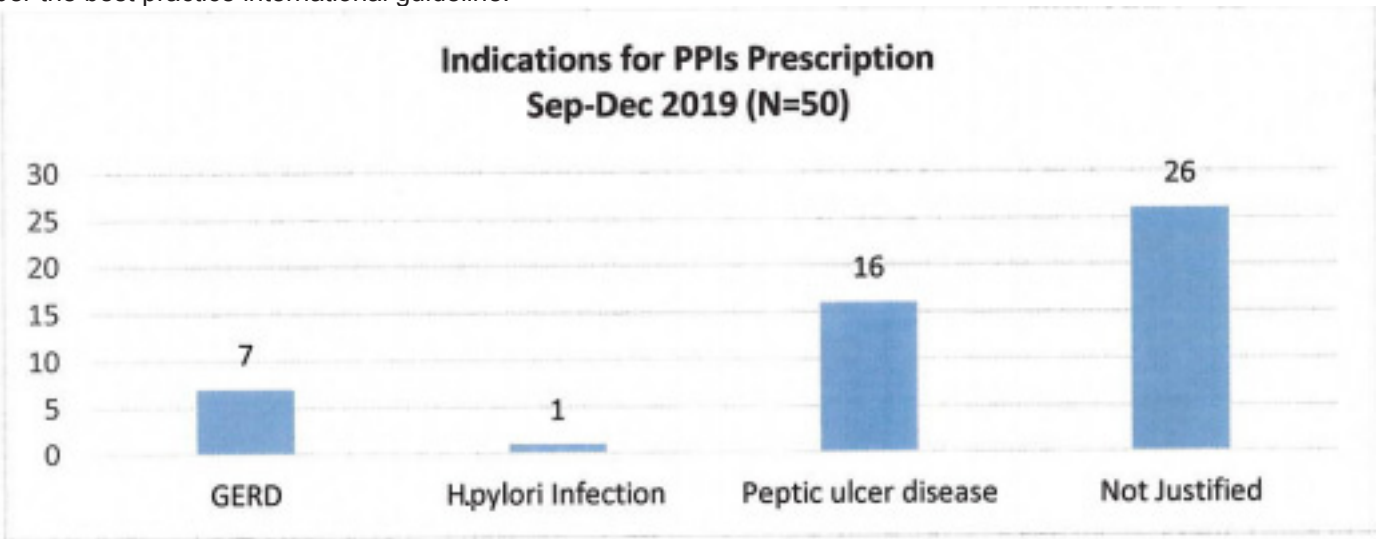


Figure 5: Evidence showing PPIs suitable doses with indications (n=50)
It illustrates that compliance to suitability of PPIs with indications was found in all 24/50 cases (49%) of the total sample but considering compliance to the justified indication in earlier graph which showed that in 24 cases PPIs were prescribed for justified reasons, it can be argued that physicians remained 100% compliant in prescribing a suitable dose for the justified indications. However, likewise, it can also be argued that in 26 cases the PPIS were given for unjustified indications so for the same cohort the suitability of dose was 100% non-compliant.

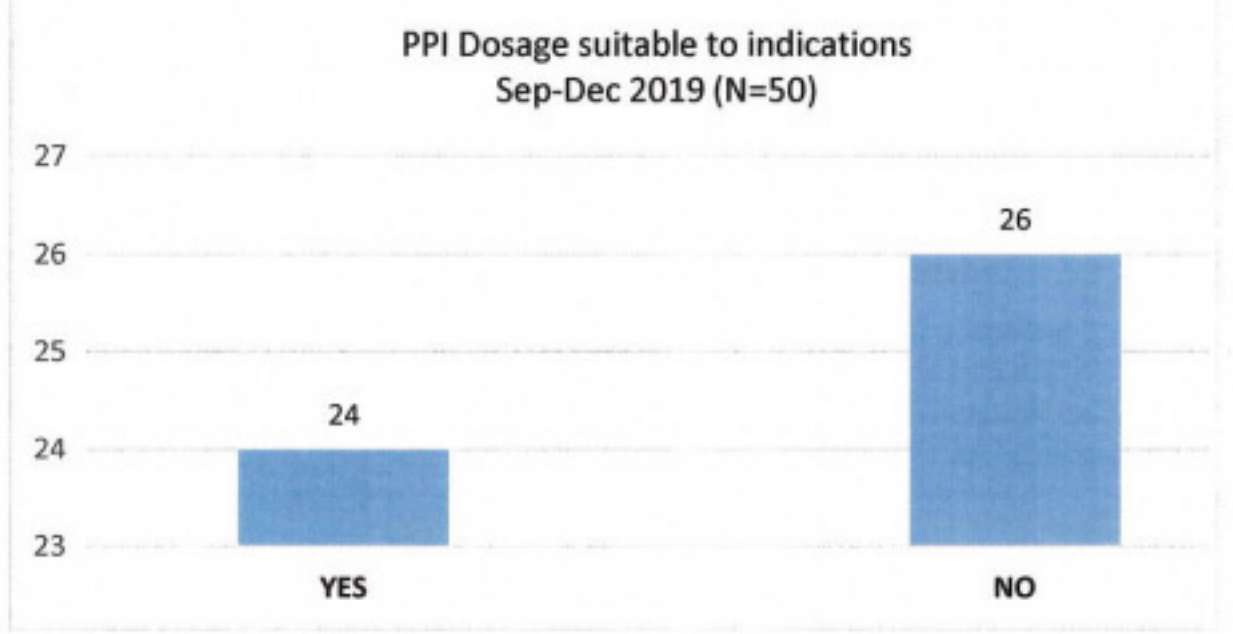


Figure 6. Evidence showing suitability of PPIs duration of treatment with indications (n=5O)
As shown in Figure 6, 9/24(37.5%) cases were not suitable which is significant non-compliance.
Editor note: As earlier, there is not much point looking at both sets of figures (compliant and non-compliant) as they say the same. One set will always do.

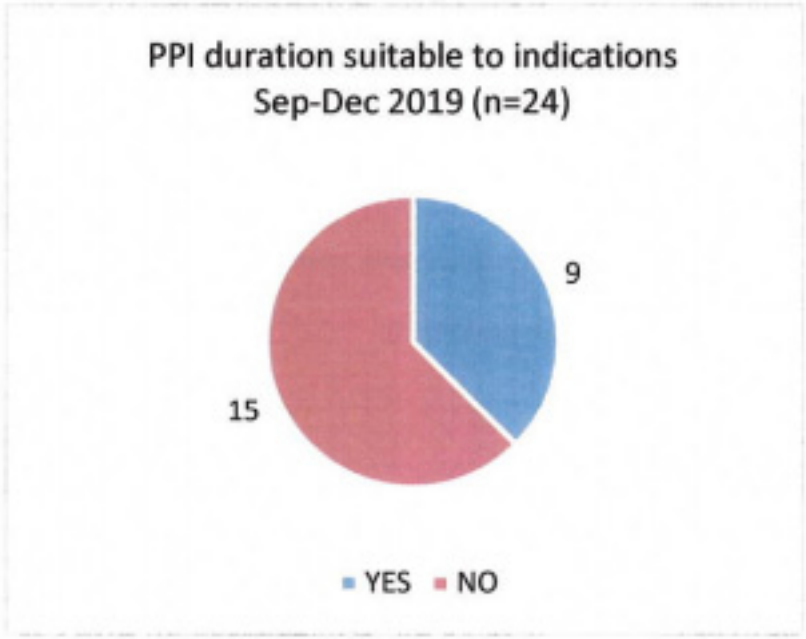


Figure 7: Evidence showing spread of duration of PPIs prescribed (41}
It shows that 41/50(82%) h ealt h records showed evidence of ongoing PPIs, ranging from 4- 44 months.

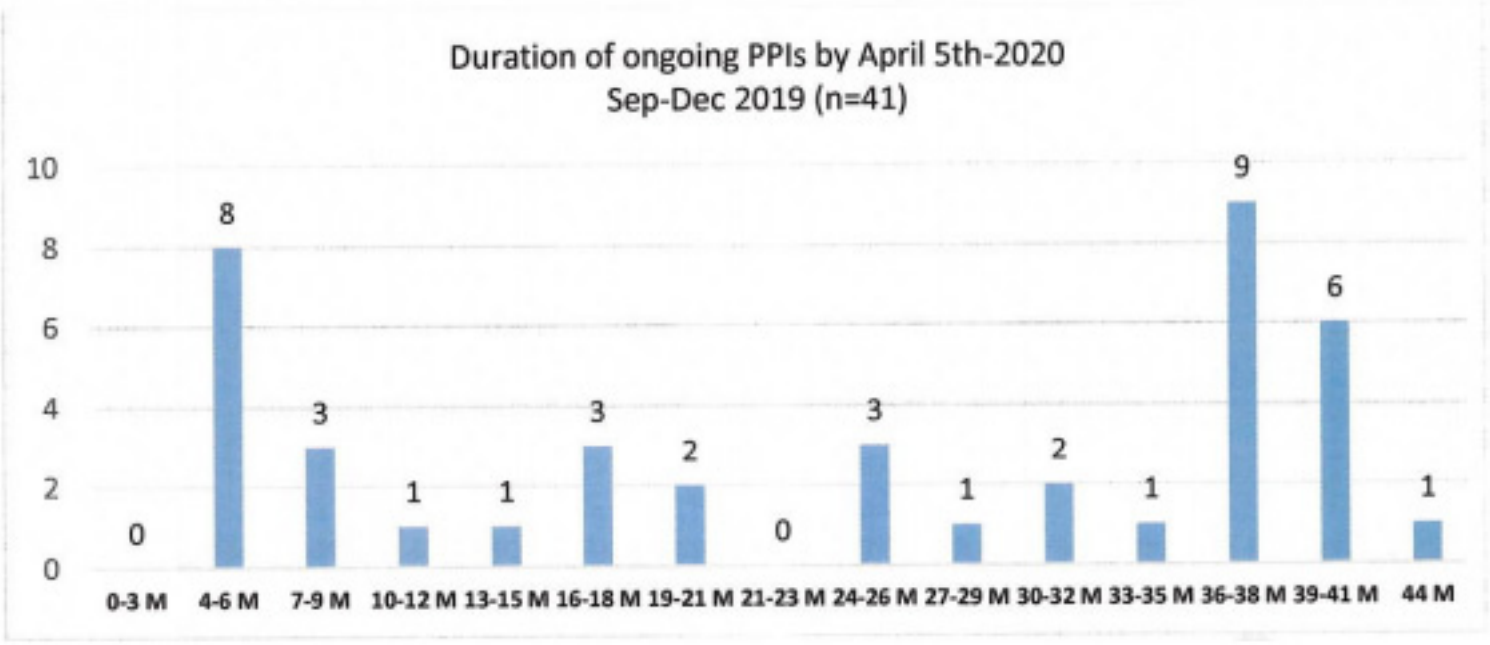


Figure 8. Evidence showing unjustified indications of PPIs use.
It indicates physicians have prescribed PPIs for wide-ranging unjustified clinical indications based on their clinical judgment. This practice needs to be discouraged.

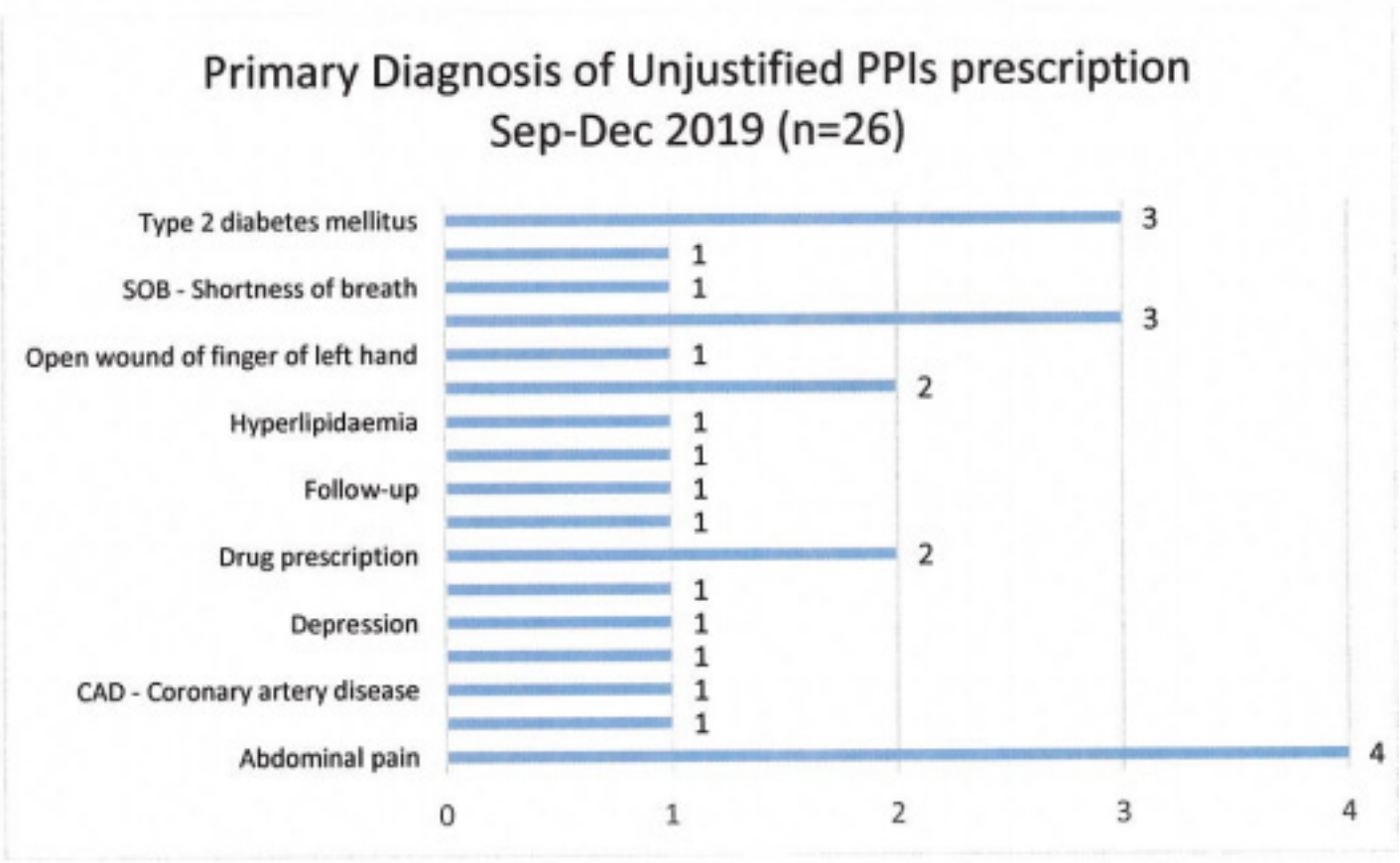
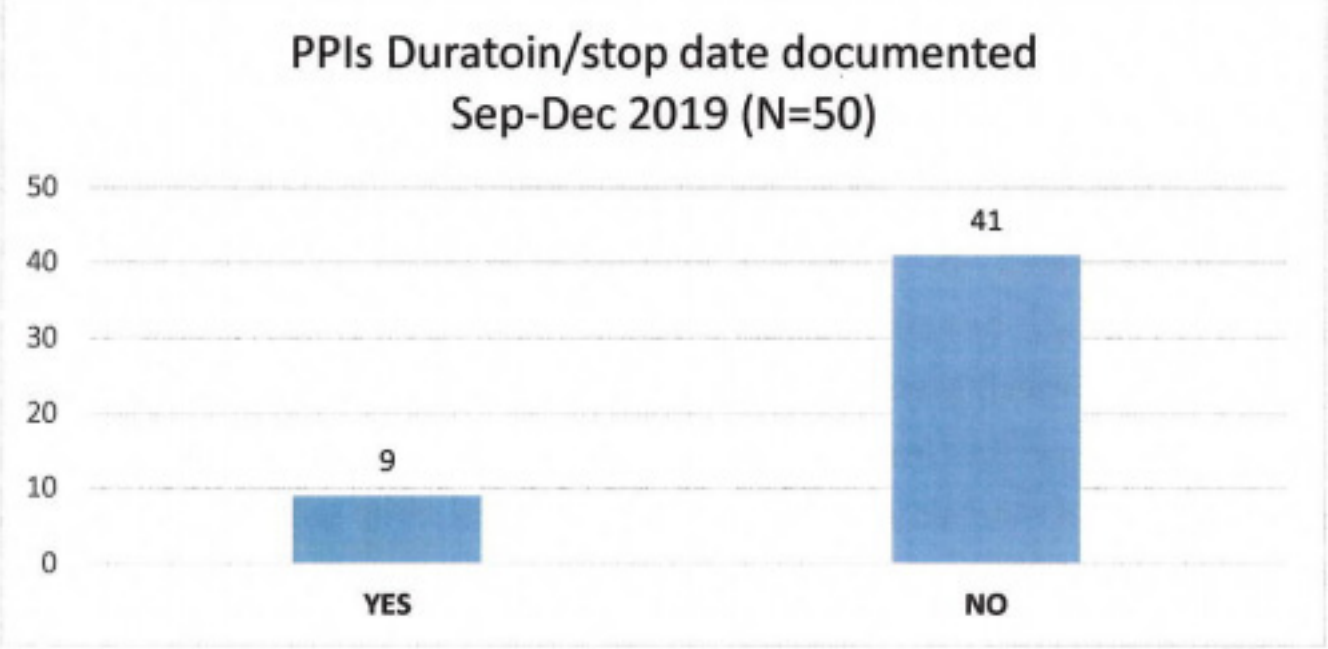


Figure 9: Documented evidence of stop date for PPIs duration
It shows that 41/50 (82%) of health records didn't show a stop date in the physician's notes for PPIs they prescribed.



Points for consideration

• Non-adherence to justified indications for prescribing PPIs
• Not considering suitable duration for specific justified indications
• Not documenting stop date for PPIs

Recommendations

1. Develop PHCC Clinical Practice Guideline for PPIs
2. Conduct training for physicians' on available best practice on prescribing PPIs.
3. Disseminate audit findings and develop consensus on justified indications
4. Arrange CME session for physicians on PPIs
5. Health education for public about use of PPIs.

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