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**Q&A for Appropriate Prescribing and Deprescribing of Proton Pump Inhibitors (PPIs)**

**Q: What does the GP Enhanced Care Framework (ECF) include relating to PPIs in 25/26?**

**Section A2.1B Clinical Transformation-Reducing over-prescribing:**

**A**: To help mitigate the risk of prolonged prescribing of PPIs, practices will work with the medicines optimisation team to adopt a shared approach for initiating, reviewing and deprescribing PPIs, in line with national guidance. Practices should implement strategies to reduce the risk of unintentional prolonged prescribing of PPIs by setting clear guidelines on initiation, establishing agreed durations for prescribing and review, and specifying when and how to discontinue use. Each practice or PCN’s nominated ‘reducing harm from medicines’ (RHM) champion will lead these initiatives, utilising locally approved deprescribing resources.

**Q: Why has this been included in the ECF 25/26 workstream?**

**A:** The UK has witnessed a continuous rise in the number of PPI items dispensed, with more than 73 million dispensed during 2022-23 in England alone, at a total cost of over 192 million GBP.

There are growing concerns about long-term treatment with PPIs. In recent years, observational studies have indicated an association with a variety of serious adverse effects caused by long-term PPI use.

Risks of PPIs if used long-term: increased fractures; *C difficile* infections; diarrhoea; community acquired pneumonia; vitamin B12 deficiency; hypomagnesaemia; dementia; acute interstitial nephritis and chronic kidney disease. Omeprazole, lansoprazole and pantoprazole also have anticholinergic properties with a score of ONE on the [ACB calculator](https://www.acbcalc.com/).

There may be indications where the benefits of long-term PPI use outweigh the risks. Patients should be assessed on an individual basis. However, **reviewing and reducing therapy** will reduce risks associated with inappropriate long-term prescribing, improve patient safety and reduce unnecessary costs associated with PPI prescribing.

[OpenPrescribing](https://openprescribing.net/icb/QM7/measures/?tags=gastrointestinal) shows that Hertfordshire and West Essex ICB is one of the highest prescribers of higher dose PPIs compared with prescribing of all PPIs (excluding liquids).



**FEB 2025 - 83% (95th percentile) of all PPIs in HWE ICB (excluding liquids) are higher dose compared to lower doses defined in the** [**NICE Guidance**](https://www.nice.org.uk/guidance/cg184/chapter/appendix-a-dosage-information-on-proton-pump-inhibitors)

**Q: What are the national guidelines for PPI prescribing and key recommendations?**

**General Principles for Appropriate PPI Prescribing**

**A**: PPIs are frequently prescribed, often without a clear indication or for prolonged durations without review ([BJGP Open](https://bjgpopen.org/content/bjgpoa/early/2025/04/07/BJGPO.2024.0059.full.pdf)). While PPIs are effective in managing acid-related conditions, they should only be **initiated when clinically indicated and reviewed regularly, with deprescribing considered where appropriate**.

Certain conditions warrant long-term use, as outlined in **Table 1**, but for most patients, PPIs should be used for the shortest effective treatment course length. When initiating a PPI, it is essential to set clear expectations with the patient regarding the **length of treatment** and **the need for regular review**.

If patients are presenting with symptoms of dyspepsia, review [medication](https://bnf.nice.org.uk/treatment-summaries/dyspepsia/) for possible causes and provide [lifestyle advice](https://www.nhs.uk/conditions/indigestion/). If a PPI is required, prescribe in line with [NICE CG184-Gastro-oesophageal reflux disease (GORD) and dyspepsia in adults](https://www.nice.org.uk/guidance/cg184).

**Table 1: Summary of clinical indicators for PPI use with typical duration of treatment (full details in clinical guideline links)**

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| --- | --- | --- | --- |
| **Condition** | **Typical Duration of PPI Use** | **Comments** | **Clinical Guidelines** |
| **Dyspepsia-unidentified cause** | **4 weeks** | **Prescribe a full-dose PPI for 1 month on an acute prescription not a repeat-see the section on** [**PPI doses for the management of people with dyspepsia symptoms**](https://cks.nice.org.uk/topics/dyspepsia-unidentified-cause/prescribing-information/proton-pump-inhibitors-ppis/)**, *or* test for *Helicobacter pylori* (*H.pylori*) infection if the person’s status is not known or uncertain.** **If symptoms persist or recur following initial management, switch to the alternative strategy (e.g., offer a full-dose PPI for 1 month if the person has been tested for *H. Pylori* infection, and vice versa).**  | [**NICE CKS: Dyspepsia- unidentified cause**](https://cks.nice.org.uk/topics/dyspepsia-unidentified-cause/management/dyspepsia-unidentified-cause/) |
| **Dyspepsia- proven GORD** | **4 weeks****Long-term** | **If the person has proven GORD offer a full-dose PPI for 4 weeks to aid healing, issued as an acute prescription not on repeat.****If the person has proven severe oesophagitis:****-Offer a full-dose PPI for 8 weeks, to aid healing.****-Offer a full-dose PPI long-term as maintenance treatment.** **See the section on** [**PPI doses for management of GORD and severe oesophagitis symptoms**](https://cks.nice.org.uk/topics/dyspepsia-proven-gord/prescribing-information/proton-pump-inhibitors/) | [**NICE CKS: GORD**](https://cks.nice.org.uk/topics/dyspepsia-proven-gord/management/dyspepsia-proven-gord/) |
| **Peptic Ulcer Disease (PUD)** | **4–8 weeks** | **If the person tests negative for *H. pylori* infection with a proven gastric or duodenal ulcer:Prescribe full-dose PPI therapy for 4–8 weeks, depending on clinical judgement.** | [**NICE CKS: Peptic Ulcer**](https://cks.nice.org.uk/topics/dyspepsia-proven-peptic-ulcer/management/management-proven-peptic-ulcer/) |
| ***Helicobacter pylori* eradication** | **7 days** | **A PPI used in combination with antibiotics.** | [**NICE CKS: H. pylori eradication**](https://cks.nice.org.uk/topics/dyspepsia-unidentified-cause/management/dyspepsia-unidentified-cause/#first-line-h-pylori-eradication-regimens)  |
| **Zollinger-Ellison Syndrome** | **Long-term** | **High-dose PPI therapy often required indefinitely to control acid hypersecretion.** | [**BNF: Zollinger-Ellison syndrome**](https://bnf.nice.org.uk/treatment-summaries/proton-pump-inhibitors/) |
| **Barrett’s oesophagus** | **Long-term** | **PPI should be offered to all patients to control symptoms of gastro-oesophageal reflux, although the dose should be reviewed regularly to prevent potential long-term side effects** | [**NICE: Barrett's oesophagus**](https://www.nice.org.uk/guidance/ng231/chapter/Recommendations#pharmacological-interventions) |

**Q: Is gastroprotection required for all patients on Anticoagulants, Antiplatelets, Corticosteroids and NSAIDs?**

**A:** **No**. Patients should be individually assessed using the prescribing guidance’s below, which can also be accessed via [HWE Clinical Guidance: Proton pump inhibitors](https://www.hweclinicalguidance.nhs.uk/all-clinical-areas-documents/search-results?Search=proton+pump+inhibitors).

* [PPIs and Anticoagulants](https://www.hweclinicalguidance.nhs.uk/all-clinical-areas-documents/download?cid=3881&checksum=a1c5aff9679455a233086e26b72b9a06)
* [PPIs and Antiplatelets](https://www.hweclinicalguidance.nhs.uk/all-clinical-areas-documents/download?cid=3882&checksum=df42e2244c97a0d80d565ae8176d3351)
* [PPIs and Corticosteroids](https://www.hweclinicalguidance.nhs.uk/all-clinical-areas-documents/download?cid=3884&checksum=8dcf2420e78a64333a59674678fb283b)
* [PPIs and NSAIDs](https://www.hweclinicalguidance.nhs.uk/all-clinical-areas-documents/download?cid=3883&checksum=51f3eb940fd73a19119534c063967bff)

**Q: How should I explain the expected duration of PPI therapy to my patient?**

**A:** Patients often assume PPIs are a lifelong treatment, but for most conditions, this is not the case. When prescribing, prescribers should clearly communicate:

* **"PPIs are intended for short-term use in most cases."**
* **"We will review your need for them after (X weeks) depending on your condition."**
* **"If your symptoms improve, we will look at either stopping or reducing your dose."**

Setting clear expectations and providing patients with a **planned stopping strategy** at initiation reduces the likelihood of long-term, unnecessary use.

**Q: How do I deprescribe a PPI safely?**

**A:** It has been estimated that up to 30% of patients may be able to stop a PPI immediately after the initial course of therapy without experiencing symptoms. For those who have completed a minimum of 4-week course of PPI treatment, which has resulted in the resolution of upper gastrointestinal (GI) symptoms, it is recommended that the daily dose is decreased, or stopped and changed to an ‘as needed’/’on demand’ use, or if symptoms have completely resolved to **stop treatment**. Patients can manage occasional symptoms using over the counter antacid, alginate, PPI or H2RA as needed, available from a local community pharmacy or supermarket.

**A deprescribing algorithm for adults taking PPIs is linked below:**

[Proton Pump Inhibitor (PPI): Deprescribing algorithm (adults)](https://www.hweclinicalguidance.nhs.uk/all-clinical-areas-documents/download?cid=3983&checksum=5e4450dc93010bbeea7cd28eba296850)

**Q: What if a patient insists on staying on a PPI long-term?**

**A:** Some patients may be concerned about stopping their medication. **Key points to address:**

* **"Long-term PPI use is not risk-free” and may:**

-Increase the risk of developing *Clostridium* *difficile*, a gut infection causing severe diarrhoea; -Mask gastric and stomach cancers; -Increase the risk of broken bones, especially in the elderly population; -Increase the risk of pneumonia; -Reduce the body’s magnesium level leading to tiredness, muscle weakness and other more serious side effects which include convulsions, dizziness, and abnormal heart rhythms.

* **"We will only continue PPIs long-term if clinically necessary."** This includes cases such as severe oesophagitis, Barrett’s oesophagus, or Zollinger-Ellison Syndrome.
* **"Regular reviews are important to ensure you're on the lowest effective dose."** PPIs should be reviewed between four and eight weeks after starting treatment. Due to adverse effects, people who need long-term PPI therapy should be offered an annual review and encouraged to try stepping down PPI therapy to the lowest dose needed to control symptoms, treatment on an ‘as needed’ basis, self-treatment with antacid and/or alginate therapy either prescribed or purchased over the counter.
* **“PPIs can contribute to the risk of falls in older people when taking at the same time as some other medications.”** PPIs have an anticholinergic burden score of ONE and can contribute to falls in the elderly.
* By reinforcing these messages, we can **prevent unnecessary long-term prescribing** and improve patient understanding.

**Q: Are there any risks prescribing a PPI with clopidogrel and other drugs?**

**A**: **Yes**. Concomitant use of clopidogrel with omeprazole or esomeprazole should be discouraged. Information for prescribers and patients has been updated in the [MHRA](https://www.gov.uk/drug-safety-update/clopidogrel-and-proton-pump-inhibitors-interaction-updated-advice#:~:text=Concomitant%20use%20of%20clopidogrel%20and,therapies%20would%20be%20more%20suitable) alert. The research paper in the [BJGP Open](https://bjgpopen.org/content/bjgpoa/early/2025/04/07/BJGPO.2024.0059.full.pdf) found that 18% of patients, diagnosed for long-term treatment with omeprazole or esomeprazole, were also prescribed clopidogrel. By logging into [Eclipse](https://gbr01.safelinks.protection.outlook.com/?url=https%3A%2F%2Fwww.nhspathways.org%2F&data=05%7C02%7Cniraj.shah1%40nhs.net%7C2f2a74fc37f44b07170708dc1d8cda01%7C37c354b285b047f5b22207b48d774ee3%7C0%7C0%7C638417738003447968%7CUnknown%7CTWFpbGZsb3d8eyJWIjoiMC4wLjAwMDAiLCJQIjoiV2luMzIiLCJBTiI6Ik1haWwiLCJXVCI6Mn0%3D%7C3000%7C%7C%7C&sdata=m5da8osbEj7%2FOjsdItGJjMvc5kc3oJmsUC1OP1von4A%3D&reserved=0) and using the direct [link](https://gbr01.safelinks.protection.outlook.com/?url=https%3A%2F%2Fsecure.nhspathways.org%2FNHSPathways%2Fmembers%2Fsonar%2Findex.aspx%3Fsonarid%3D1599%26EpactSurgeryID%3D-1%26SurgeryGroupID%3D-1&data=05%7C02%7Cniraj.shah1%40nhs.net%7C0f5a0e9b4311440eb94d08dd8332fd87%7C37c354b285b047f5b22207b48d774ee3%7C0%7C0%7C638810977256548395%7CUnknown%7CTWFpbGZsb3d8eyJFbXB0eU1hcGkiOnRydWUsIlYiOiIwLjAuMDAwMCIsIlAiOiJXaW4zMiIsIkFOIjoiTWFpbCIsIldUIjoyfQ%3D%3D%7C0%7C%7C%7C&sdata=sf6aGD6LWE3HQtrxO5YbUIisWqSnw%2FhRvUm6P6BzQBU%3D&reserved=0) to the 'clopidogrel with omeprazole/esomeprazole drug alert' patients can be identified by filtering at a practice level.

There may be possible [drug interactions](https://cks.nice.org.uk/topics/dyspepsia-unidentified-cause/prescribing-information/proton-pump-inhibitors-ppis/) with certain medications which should be checked when reviewing or initiating a PPI.

**Q: How can GP practices implement deprescribing of PPIs?**

**A:** Deprescribing PPIs should be incorporated into routine general practice in several ways. It may form part of **structured medication reviews**, particularly for patients who have been prescribed PPIs long-term without a clear ongoing indication. A research paper published in [The British Journal of General Practice](https://bjgpopen.org/content/bjgpoa/early/2025/04/07/BJGPO.2024.0059.full.pdf) (2025) studying PPI prescribing in 62 GP practices found that 62% of the 77,356 patients prescribed a PPI had no recorded indication, of which **40%** had no medication review done in the preceding year. Practices may also choose to adopt a whole practice focus over a defined period to systematically review and reduce unnecessary PPI use. Raising awareness through practice training events and clinical meetings led by the practice’s RHM champion, can help build shared understanding of the risks associated with long-term PPI use and support safe deprescribing strategies.

The following process outlines a practical, step-by-step approach that practices can adopt to support the safe and effective deprescribing of PPIs (see resources below):

* Run clinical system searches and review patients suitable for PPI deprescribing.
* Complete audit sheet and suggest a reduction plan (authorisation required by prescribing lead or designated GP).
* Send initial invitation to patient for PPI discussion (method of communication to be agreed with practice- phone call, AccuRx or letter).
* Document consultation with patients including agreed next steps (this may include that the patient currently does not wish to reduce/stop their dose) in clinical system record.
* Make appropriate changes to patients repeat template as agreed with prescribing lead or designated GP. Ensure that there is a clear **indication recorded** for treatment and review date.
* Follow up with patients at agreed interval.

**Q: Are there resources that can support GP practices review PPI prescribing?**

**A**: **Yes**, the [Proton Pump Inhibitor (PPI): Deprescribing algorithm (adults)](https://www.hweclinicalguidance.nhs.uk/all-clinical-areas-documents/download?cid=3983&checksum=5e4450dc93010bbeea7cd28eba296850) as well as the following resources can all be accessed from [PrescQIPP](https://www.prescqipp.info/), once registered. See below:

* A resource pack providing information and searches that GP practices can upload into SystmOne or EMIS Web.

[PrescQIPP Bulletin 267: PPIs - Long term safety and gastroprotection](https://www.prescqipp.info/our-resources/bulletins/bulletin-267-ppis-long-term-safety-and-gastroprotection/)

\*Note: PrescQIPP searches include PPIs prescribed as an **acute** or **repeat** prescription in the last 12 months. **The search criteria can be amended once uploaded into the clinical system to remove acutes from the search if required**.

* PrescQIPP audit guide and collection sheet.



* PrescQIPP PPI checklist when considering initiating a PPI, or when reviewing or monitoring a patient on a PPI to:

-Review the patient for risk factors

-Review the patient for contraindications/cautions in use for PPI treatment

-Review whether the benefits of treatment outweigh the risks of treatment. There are additional considerations for patients at risk in specific patient groups.



* A [PPI Stopping or Reducing patient letter](https://www.hweclinicalguidance.nhs.uk/all-clinical-areas-documents/search-results/ppi-stopping-or-reducing-patient-letter/)

**References:**

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2. National Library of Medicine: [Deprescribing proton pump inhibitors: Evidence-based clinical practice guideline - PMC](https://pmc.ncbi.nlm.nih.gov/articles/PMC5429051/)
3. [ACB calculator](https://www.acbcalc.com/): Last updated 3rd July 2024.
4. [OpenPrescribing](https://openprescribing.net/icb/QM7/measures/?tags=gastrointestinal): NHS Hertfordshire and West Essex ICB- Prescribing measure for Gastrointestinal system.
5. [Dyspepsia - unidentified cause | Health topics A to Z | CKS | NICE](https://cks.nice.org.uk/topics/dyspepsia-unidentified-cause/): Last revised in May 2024
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9. [Recommendations | Barrett's oesophagus and stage 1 oesophageal adenocarcinoma: monitoring and management | Guidance | NICE](https://www.nice.org.uk/guidance/ng231/chapter/Recommendations#pharmacological-interventions): NICE guideline/NG231/Published: 08 February 2023.
10. [Proton pump inhibitors | Treatment summaries | BNF | NICE](https://bnf.nice.org.uk/treatment-summaries/proton-pump-inhibitors/)
11. [Scenario: Dyspepsia - unidentified cause | Management | Dyspepsia - unidentified cause | CKS | NICE](https://cks.nice.org.uk/topics/dyspepsia-unidentified-cause/management/dyspepsia-unidentified-cause/): Last revised in May 2024.
12. [HWE Clinical Guidance: Proton pump inhibitors](https://www.hweclinicalguidance.nhs.uk/all-clinical-areas-documents/search-results?Search=proton+pump+inhibitors): Hertfordshire and West Essex ICB Prescribing, Polices and Pathways website.
13. [PrescQIPP Bulletin 267: PPIs - Long term safety and gastroprotection](https://www.prescqipp.info/our-resources/bulletins/bulletin-267-ppis-long-term-safety-and-gastroprotection/): Implementation resources including an audit, GP clinical system search, medicine safety checklist, PPI deprescribing algorithm and educational presentation.
14. [Long-term Proton Pump Inhibitor (PPI) prescribing reviews (2024)](https://www.prescqipp.info/community-resources/innovation-and-best-practice/long-term-proton-pump-inhibitor-ppi-prescribing-reviews-2024/): West Yorkshire ICB, Calderdale Project Summary.
15. [Appendix A: Dosage information on proton pump inhibitors | Gastro-oesophageal reflux disease and dyspepsia in adults: investigation and management | Guidance | NICE](https://www.nice.org.uk/guidance/cg184/chapter/appendix-a-dosage-information-on-proton-pump-inhibitors#appendix-a-dosage-information-on-proton-pump-inhibitors): Clinical guideline/CG184/Published: 3rd September 2014/ Last updated: 18th October 2019.
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