

| Medications (filled by physician) | Total dose mg/day | Day 1 | Day 2 | Day 3 | Day 4 | Day 5 | Day 6 | Day 7 | Day 8 | Day 9 | Day 10 | Day 11 | Day 12 | Day 13 | Day 14 |
|-----------------------------------|-------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|--------|--------|--------|--------|--------|
| PPI:                              |                   |       |       |       |       |       |       |       |       |       |        |        |        |        |        |
| Before meal, in 2 doses           |                   |       |       |       |       |       |       |       |       |       |        |        |        |        |        |
| With /before meal                 |                   |       |       |       |       |       |       |       |       |       |        |        |        |        |        |
| With /before meal                 |                   |       |       |       |       |       |       |       |       |       |        |        |        |        |        |
| With /before meal                 |                   |       |       |       |       |       |       |       |       |       |        |        |        |        |        |
| Special events                    |                   |       |       |       |       |       |       |       |       |       |        |        |        |        |        |
| Abdominal pain                    |                   |       |       |       |       |       |       |       |       |       |        |        |        |        |        |
| Diarrhea (liquid stool)           |                   |       |       |       |       |       |       |       |       |       |        |        |        |        |        |
| Vomiting                          |                   |       |       |       |       |       |       |       |       |       |        |        |        |        |        |
| Metallic taste                    |                   |       |       |       |       |       |       |       |       |       |        |        |        |        |        |
| Having cold                       |                   |       |       |       |       |       |       |       |       |       |        |        |        |        |        |
| Having fever                      |                   |       |       |       |       |       |       |       |       |       |        |        |        |        |        |
| Other: _____                      |                   |       |       |       |       |       |       |       |       |       |        |        |        |        |        |
| Other: _____                      |                   |       |       |       |       |       |       |       |       |       |        |        |        |        |        |



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TREATING PHYSICIAN (Stamp)



**TREATMENT OF *HELICOBACTER PYLORI* INFECTION IN CHILDREN.**

**INFORMATION FOR PARENTS**



**IMPRESSUM**

Developed by the *Helicobacter pylori* Working Group on behalf of the European Society of Paediatric Gastroenterology, Hepatology and Nutrition (ESPGHAN)  
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## What is *Helicobacter pylori* (*H. pylori*)?



*H. pylori* is a bacterium that infects the stomach.

*H. pylori* infection is common in some countries, mostly acquired during the first five years of life. Without treatment, it persists in the stomach. A new infection is less likely to occur after this age.

Most infected children have no symptoms. Some children may develop symptoms including abdominal pain, nausea, and vomiting.

### Possible consequences of *H. pylori*

- All infected children have some inflammation of the stomach (gastritis), but in most affected children this does not cause symptoms or problems.
- Few infected children develop an ulcer in the duodenum or stomach.
- Very rarely, malignancy (gastric cancer or lymphoma) may develop in adulthood.

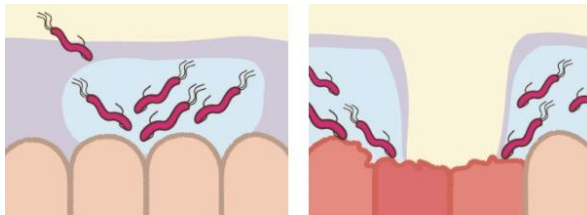
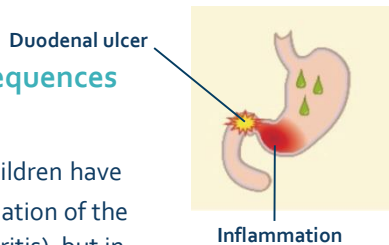


Figure: *H. pylori* is hidden below the mucus layer (left). Occasionally, the infection damages the stomach lining (mucosa) to cause an erosion or ulcer (right).

## How is *H. pylori* diagnosed?



At initial diagnosis an endoscopy with biopsies is performed. This allows to see whether an ulcer is present and to take little tissue samples for investigations under the microscope (histology), and to test which antibiotics work best of the bacteria.

**Treatment in children should not be based on a stool test or breath test or blood test.**

### What is important to know about *H. pylori* therapy?



- At least two different antibiotics plus acid suppressing drugs (proton pump inhibitor, PPI) are needed.
- Medication must be taken as prescribed (dose and duration). Please report each intake in the diary.
- The bacteria live below the mucus layer and are difficult to reach with drugs (see Figure).
- Only few antibiotics can kill these bacteria.
- Many *H. pylori* bacteria are resistant against common antibiotics, so they do not work.
- **Before treatment inform your doctor if your child is allergic to any antibiotic.**

**It is very important to take all medications for the whole duration as prescribed by your doctor to treat the infection successfully!**



## Adverse effect of the treatment may occur



- Adverse effects like diarrhoea, abdominal pain or vomiting are common when taking antibiotics.
- If they are so severe that you need to stop the medication please contact your doctor.

### How do we know that treatment was successful?



**Resolution or change of symptoms does not tell whether the infection is cleared or not**

A diagnostic test 6 to 8 weeks after treatment is necessary to prove successful therapy.

One of the following tests are appropriate:

- <sup>13</sup>C-urea breath test (UBT)
- stool test
- repeat endoscopy when indicated

These tests are only reliable if antibiotics are stopped 4 weeks and acid suppressing drugs (PPI) at least 2 weeks before testing.

New infections after cure are rare. There is no need to investigate family members without complaints in order to avoid re-infection.

**If you have further questions please contact your pediatric gastroenterologist or pediatrician.**

# Diary for reporting drug intake, side effects and special events during *H. pylori* therapy

| Medications<br>(filled by physician) | Total dose<br>mg/day | Day 1 | Day 2 | Day 3 | Day 4 | Day 5 | Day 6 | Day 7 | Day 8 | Day 9 | Day 10 | Day 11 | Day 12 | Day 13 | Day 14 |
|--------------------------------------|----------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|--------|--------|--------|--------|--------|
| PPI: _____                           |                      |       |       |       |       |       |       |       |       |       |        |        |        |        |        |
| Before meal, in 2 doses              |                      |       |       |       |       |       |       |       |       |       |        |        |        |        |        |
| With / before meal                   |                      |       |       |       |       |       |       |       |       |       |        |        |        |        |        |
| With / before meal                   |                      |       |       |       |       |       |       |       |       |       |        |        |        |        |        |
| With / before meal                   |                      |       |       |       |       |       |       |       |       |       |        |        |        |        |        |
|                                      |                      |       |       |       |       |       |       |       |       |       |        |        |        |        |        |
|                                      |                      |       |       |       |       |       |       |       |       |       |        |        |        |        |        |
| Special events                       |                      | Day 1 | Day 2 | Day 3 | Day 4 | Day 5 | Day 6 | Day 7 | Day 8 | Day 9 | Day 10 | Day 11 | Day 12 | Day 13 | Day 14 |
| Abdominal pain                       |                      |       |       |       |       |       |       |       |       |       |        |        |        |        |        |
| Diarrhea (liquid stool)              |                      |       |       |       |       |       |       |       |       |       |        |        |        |        |        |
| Vomiting                             |                      |       |       |       |       |       |       |       |       |       |        |        |        |        |        |
| Metallic taste                       |                      |       |       |       |       |       |       |       |       |       |        |        |        |        |        |
| Having cold                          |                      |       |       |       |       |       |       |       |       |       |        |        |        |        |        |
| Having fever                         |                      |       |       |       |       |       |       |       |       |       |        |        |        |        |        |
| Other: _____                         |                      |       |       |       |       |       |       |       |       |       |        |        |        |        |        |
| Other: _____                         |                      |       |       |       |       |       |       |       |       |       |        |        |        |        |        |



# Diary for reporting drug intake, side effects and special events during *H. pylori* therapy

| Medications<br>(filled by physician) | Total dose<br>mg/day | Day 1 | Day 2 | Day 3 | Day 4 | Day 5 | Day 6 | Day 7 | Day 8 | Day 9 | Day 10 | Day 11 | Day 12 | Day 13 | Day 14 |
|--------------------------------------|----------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|--------|--------|--------|--------|--------|
| PPI: _____                           |                      |       |       |       |       |       |       |       |       |       |        |        |        |        |        |
| Before meal, in 2 doses              |                      |       |       |       |       |       |       |       |       |       |        |        |        |        |        |
| With / before meal                   |                      |       |       |       |       |       |       |       |       |       |        |        |        |        |        |
| With / before meal                   |                      |       |       |       |       |       |       |       |       |       |        |        |        |        |        |
| With / before meal                   |                      |       |       |       |       |       |       |       |       |       |        |        |        |        |        |
|                                      |                      |       |       |       |       |       |       |       |       |       |        |        |        |        |        |
|                                      |                      |       |       |       |       |       |       |       |       |       |        |        |        |        |        |
|                                      |                      |       |       |       |       |       |       |       |       |       |        |        |        |        |        |
| Special events                       |                      | Day 1 | Day 2 | Day 3 | Day 4 | Day 5 | Day 6 | Day 7 | Day 8 | Day 9 | Day 10 | Day 11 | Day 12 | Day 13 | Day 14 |
| Abdominal pain                       |                      |       |       |       |       |       |       |       |       |       |        |        |        |        |        |
| Diarrhea (liquid stool)              |                      |       |       |       |       |       |       |       |       |       |        |        |        |        |        |
| Vomiting                             |                      |       |       |       |       |       |       |       |       |       |        |        |        |        |        |
| Metallic taste                       |                      |       |       |       |       |       |       |       |       |       |        |        |        |        |        |
| Having cold                          |                      |       |       |       |       |       |       |       |       |       |        |        |        |        |        |
| Having fever                         |                      |       |       |       |       |       |       |       |       |       |        |        |        |        |        |
| Other: _____                         |                      |       |       |       |       |       |       |       |       |       |        |        |        |        |        |
| Other: _____                         |                      |       |       |       |       |       |       |       |       |       |        |        |        |        |        |

