



# Gastric Cancer & Lynch Syndrome

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# Outline

1. Describe the risk of stomach cancer in Lynch Syndrome
2. Discuss risk factors for stomach cancer in patients with Lynch Syndrome
3. Outline screening recommendations in Lynch Syndrome for stomach cancer

# Summary

There is no clear evidence to support surveillance for stomach cancer in Lynch Syndrome

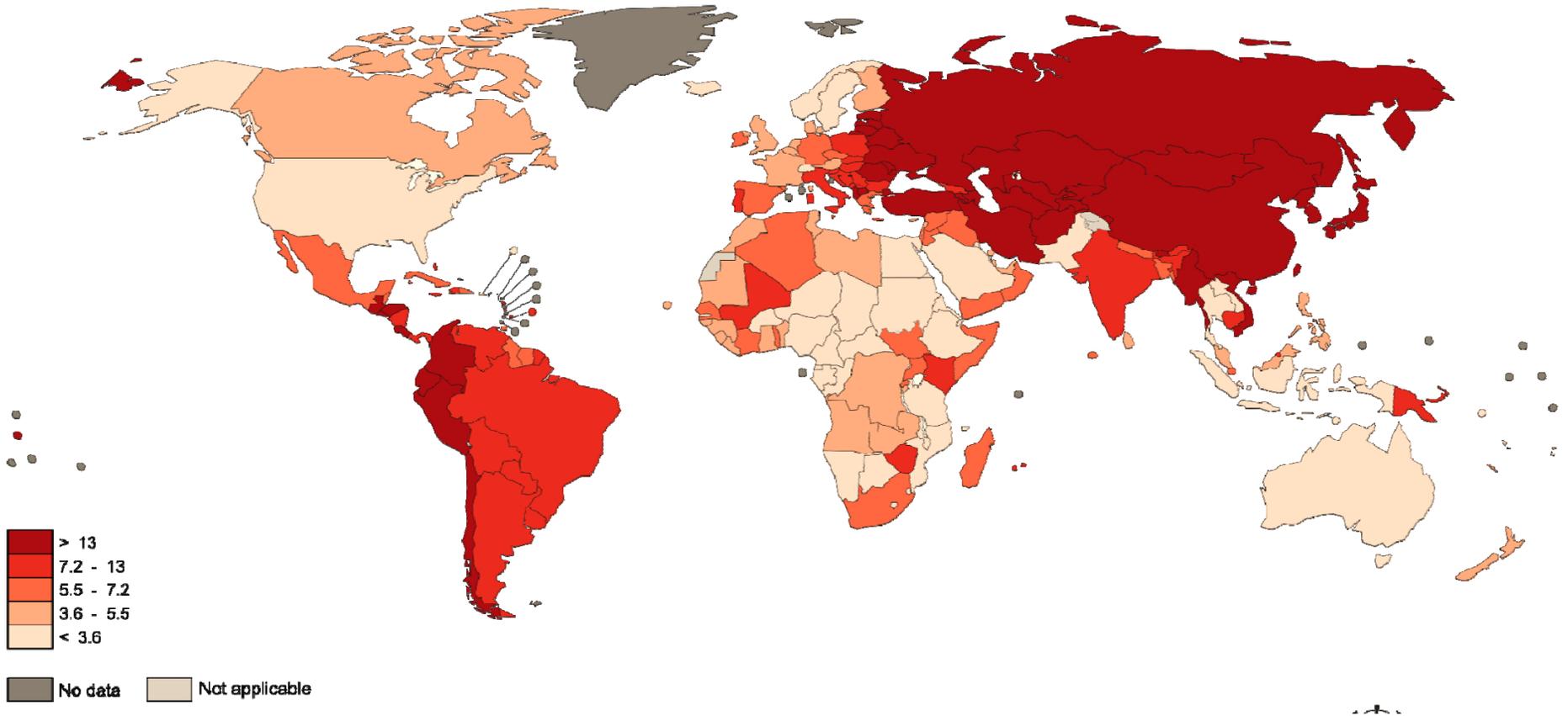


# Background

- Gastric cancer is the third most common cause of cancer death in the world **but** **Canada is a low incidence country**
- Estimated that **3500** Canadians will be diagnosed with gastric cancer this year.



# Background

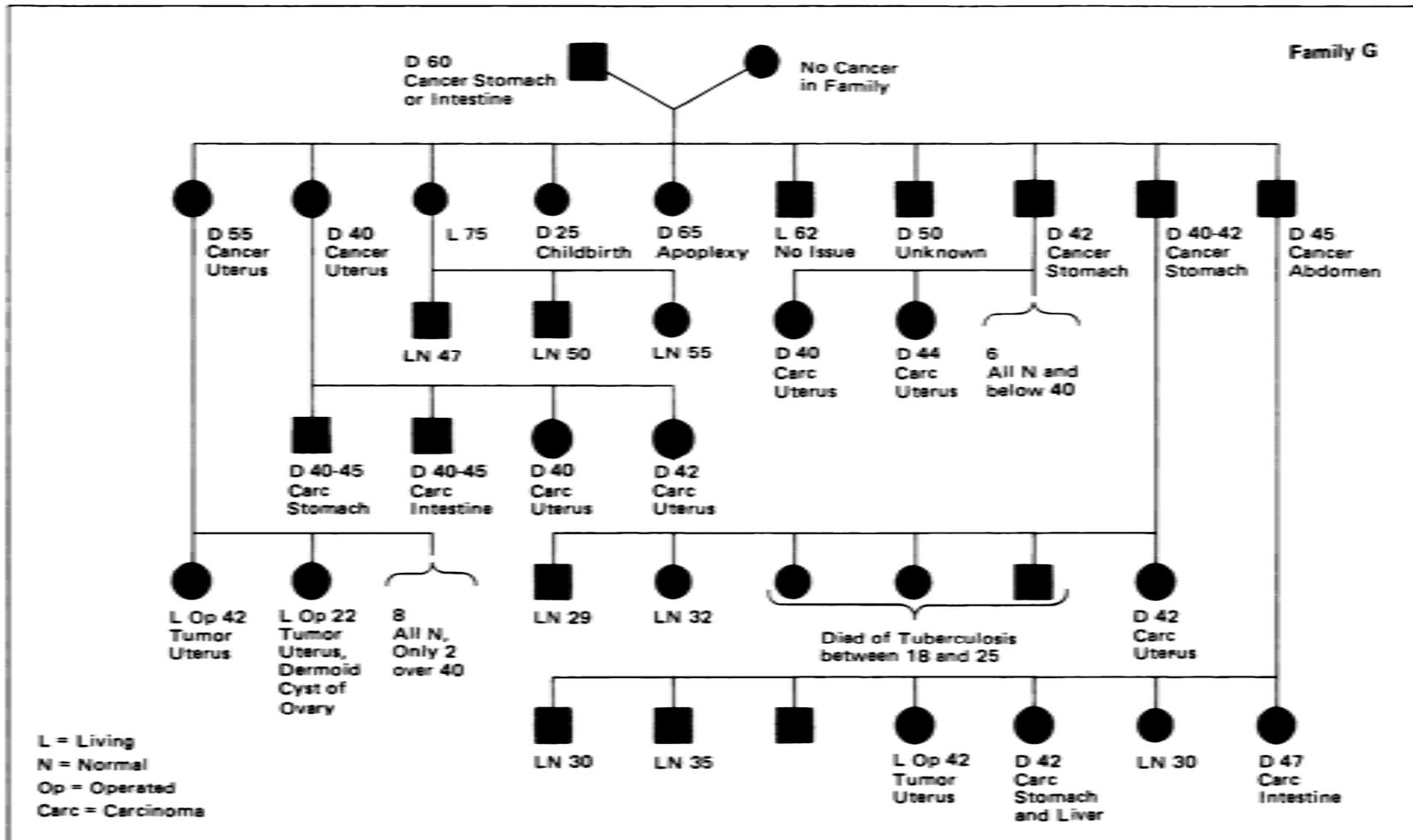


# Lynch Syndrome

- Colorectal cancer and endometrial cancer predominate in Lynch Syndrome
- Increased risk of stomach, ovaries, stomach, hepatobiliary tract, small bowel, brain and skin



# Family G

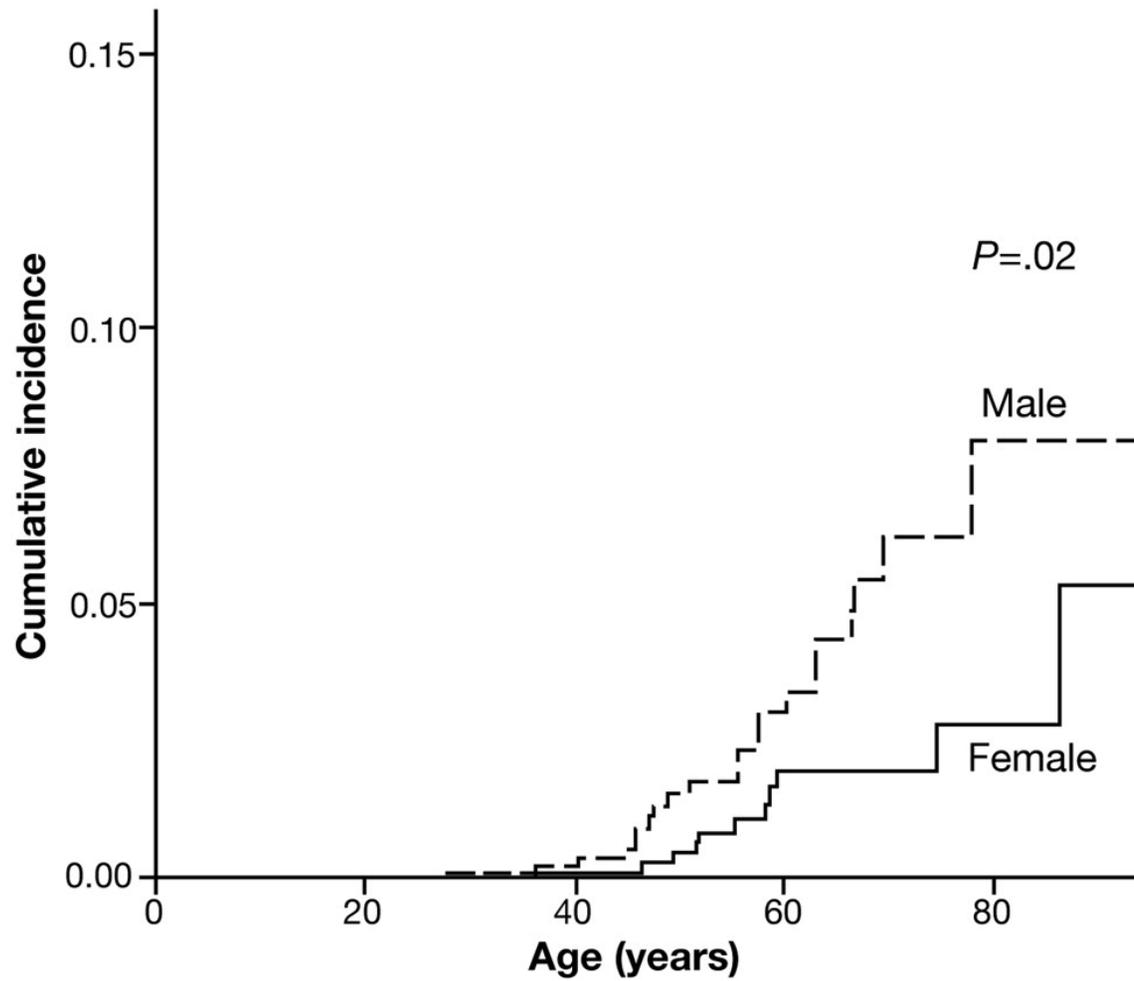


# Gastric cancer in Lynch Syndrome

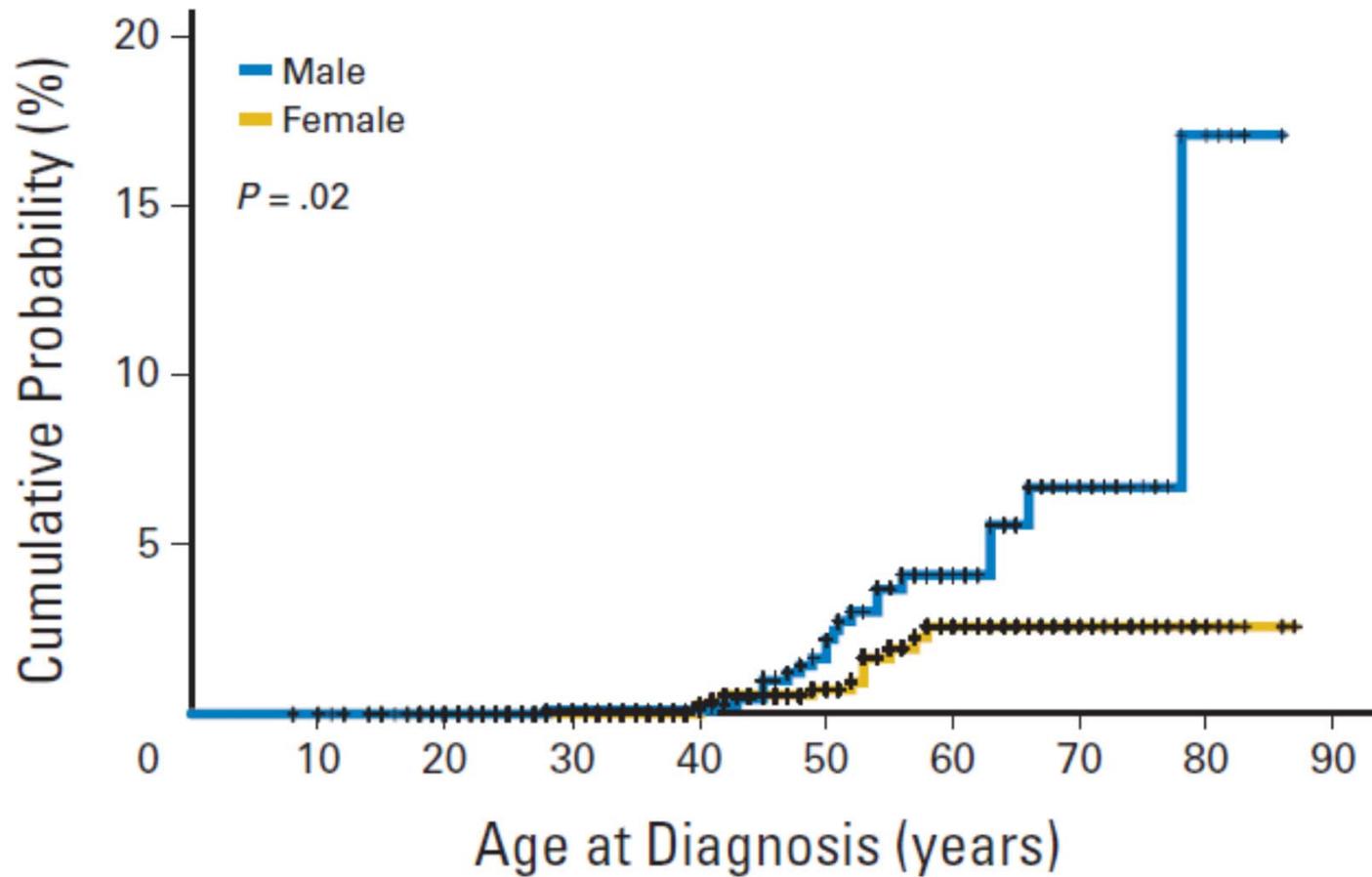
- In Lynch Syndrome around 7-8% by age 75 but there is a range (up to 12%)
- Lifetime risk of developing stomach cancer is <1% in Canada and ~ 10% in Japan



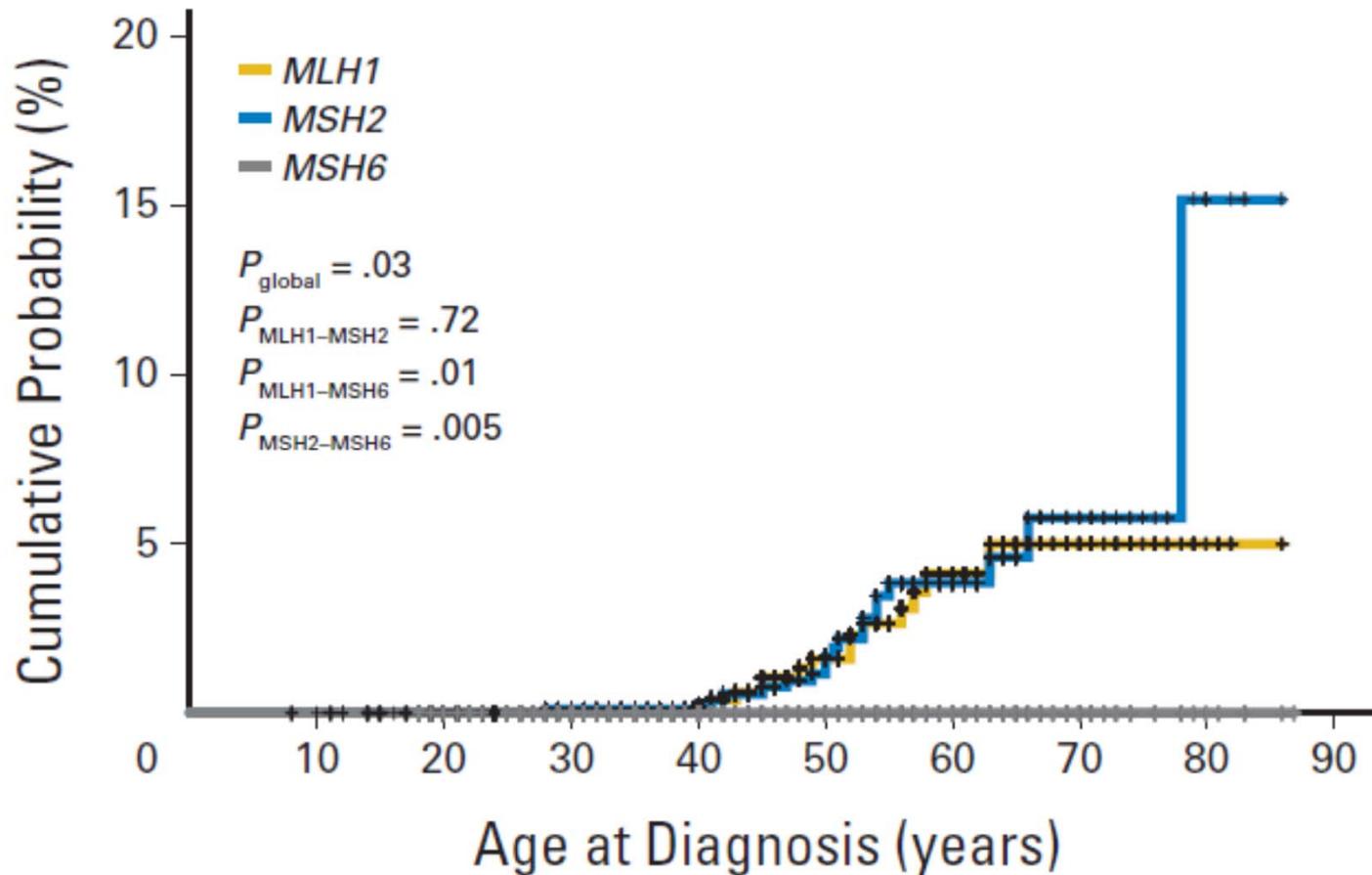
# Dutch



# Dutch + German



# Dutch + German



# Gastric cancer after colorectal cancer in LS

- The risk of developing gastric cancer in the 20 years after a primary colorectal cancer in Lynch syndrome is ~ 1%



# Gastric cancer in Lynch Syndrome

- Intestinal type predominates (75-80%)
- MSH2 > MLH1 > MSH6 [debated]
- Risk before age 50 is low, but higher than general population
- May not cluster in families



# Gastric cancer risk

- H. Pylori infection
  - Smoking
  - Atrophic gastritis
  - Intestinal metaplasia
  - Family history
  - Inherited genetic conditions
- **Diet**
    - Salt/salty food
    - Smoked/cured/processed meat
    - Low intake fruits and vegetables

# H. Pylori

- **Most important risk factor for gastric cancer**
- Worldwide the prevalence is ~50%
- Ontario estimate 23%
  - Higher: non-white, born outside of Canada, immigrated age < 20



# Family History

- Family history of stomach cancer increases risk three-fold (general pop.)
- Some evidence that in Lynch syndrome, family clustering of gastric cancer cases do not occur



# US (2017) NCCN Guidelines

- Selected families with a family history of gastric cancer or those of Asian descent
- Every 3-5 years starting at age 30-35
- Consider H. Pylori testing and eradication



# US (2014) Multi-Society Task Force

- Beginning at age 30-35 y
- subsequent surveillance every 2-3 y can be considered based on individual patient risk factors



# Europe (2013)

## Mallorca Group

- No evidence for surveillance for gastric cancer in LS mutation carriers
- Screening of carriers to detect H. Pylori and subsequent eradication
- In high incidence countries surveillance may be performed as part of a research protocol



# Europe (2013)

## ESMO (ASCO endorsed)

- Testing for H. Pylori and subsequent eradication is recommended in mutation carriers
- In case of a high incidence of gastric cancer in some populations, some experts recommend OGD every 1-3 years



# Summary

**There is no clear evidence to  
support surveillance for stomach  
cancer in Lynch Syndrome**



# Summary

Consider if surveillance:

- Known risk factors present
  - H Pylori, Intestinal metaplasia, gastric atrophy
- Family history
- Immigration from a high incidence country



Wk dqn# rx#



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