UC San Diego Health

Current Strategies and Future Prospects for the Treatment of Gastroesophageal Cancer

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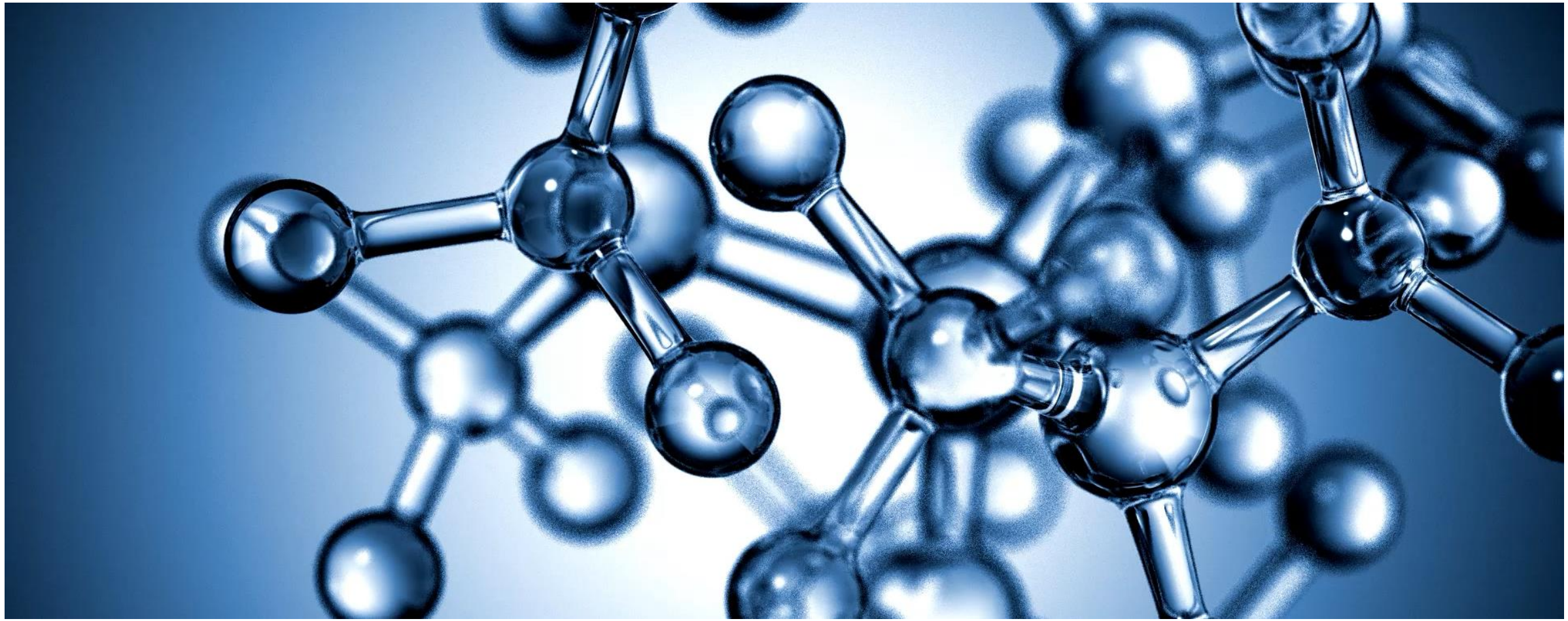
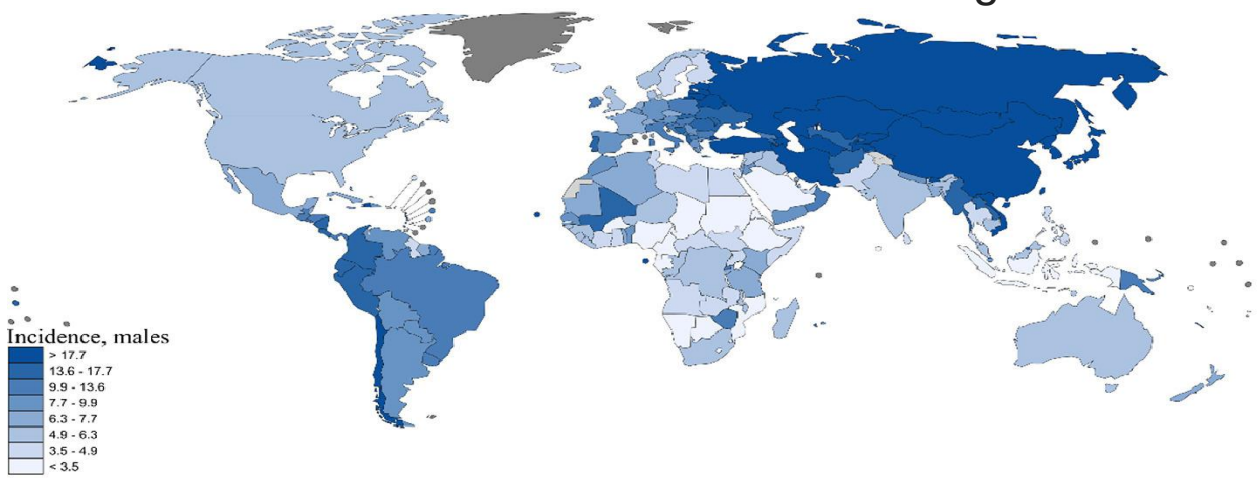
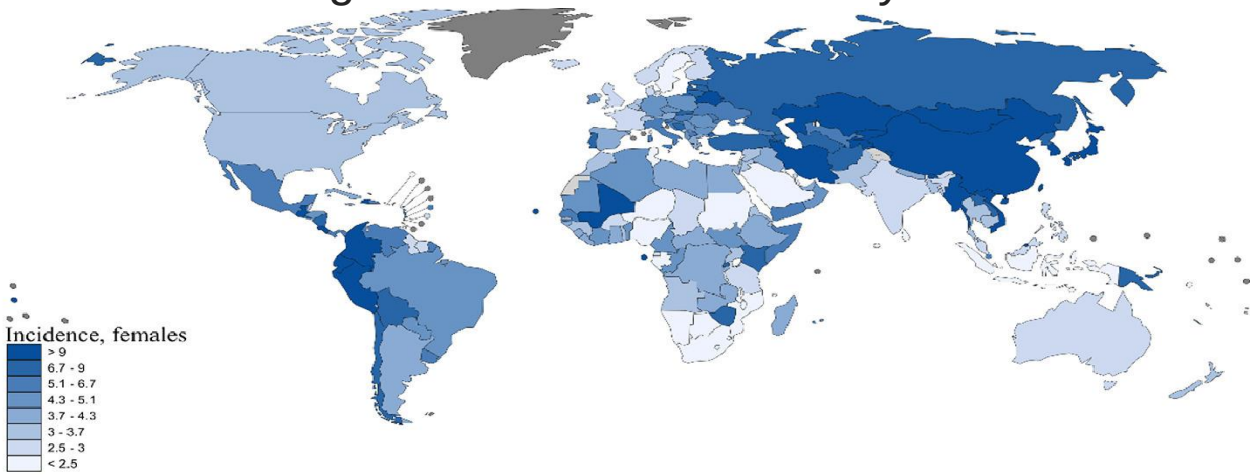
No Disclosures

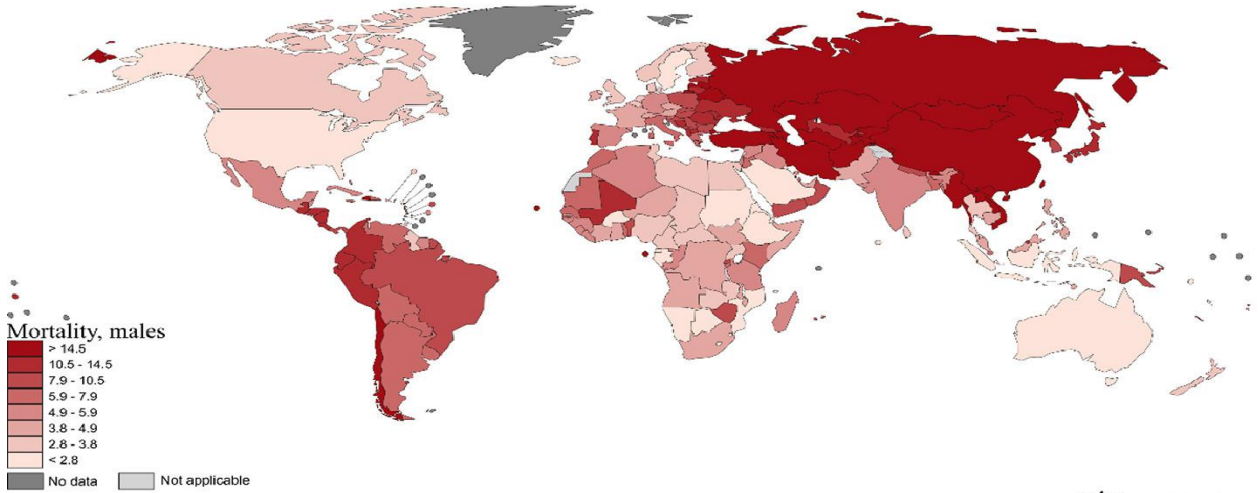


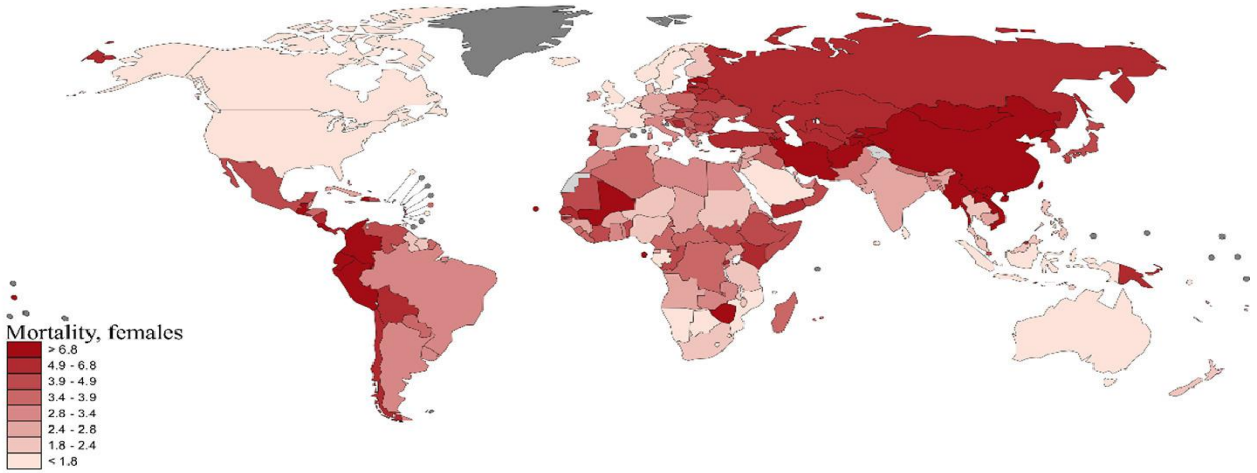
Gastric Cancer Global Epidemiology

- Gastric cancer is the 5th most common malignant cancer and the 4th leading cause of cancer mortality







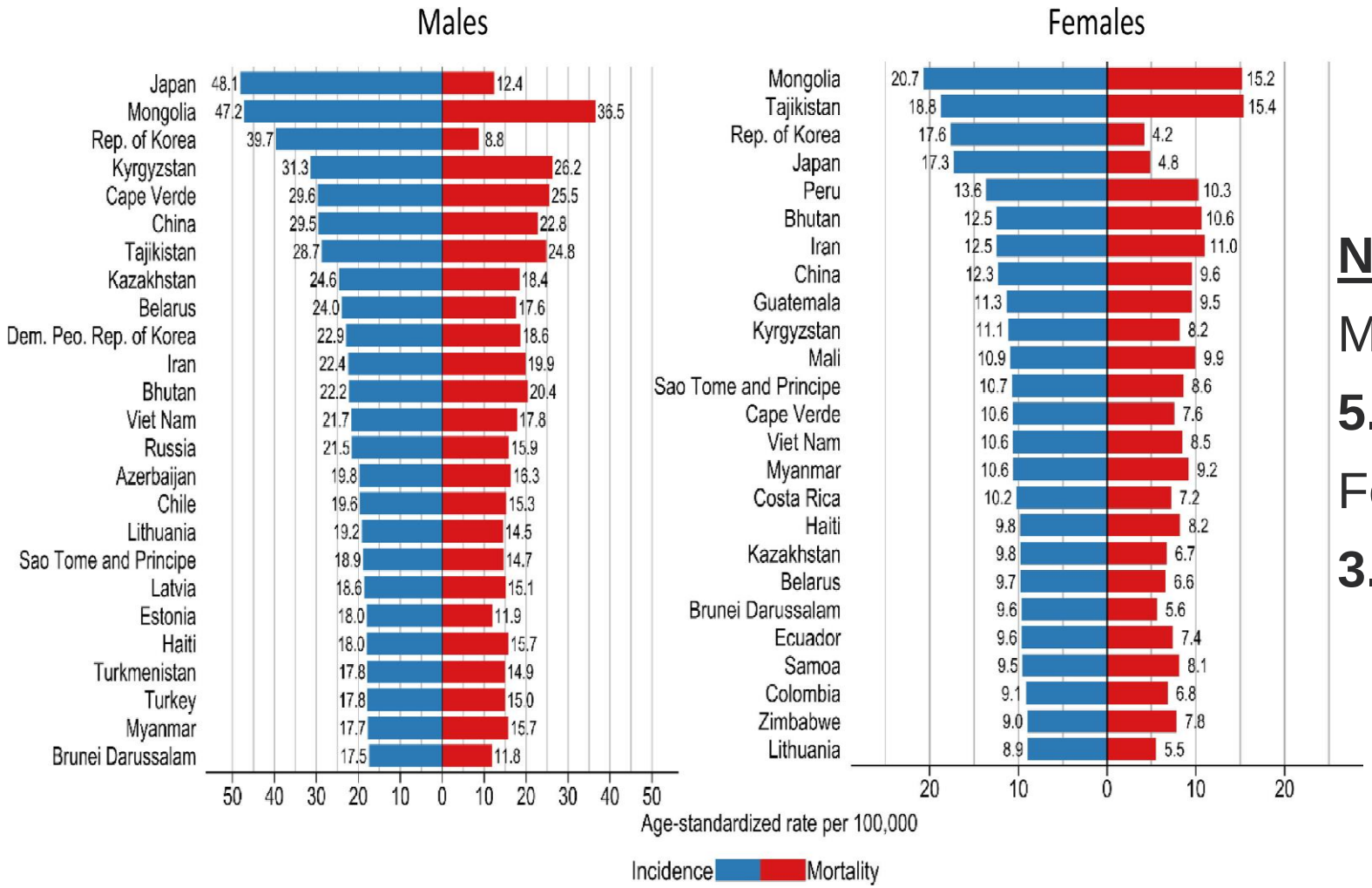


Data source: Globocan 2020
Map production: CSU
World Health Organization

World Health Organization

Morgan, Eileen, et al. "The current and future incidence and mortality of gastric cancer in 185 countries, 2020–40: a population-based modelling study." *EClinicalMedicine* 47 (2022)

Age-Standardized Gastric Cancer Incidence and Mortality Rates



<u>North America</u>

Male Incidence and Mortality**:**

5.4, 2.4/100,000

Female Incidence and Mortality:

3.1, 1.3/100,000

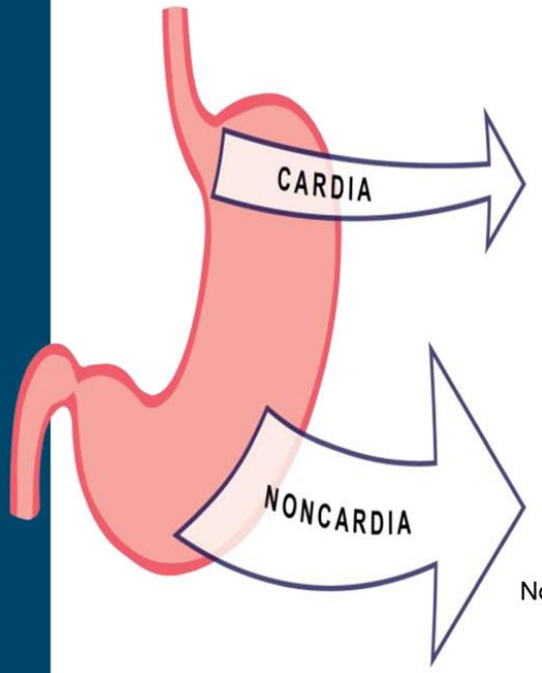
Morgan, Eileen, et al. "The current and future incidence and mortality of gastric cancer in 185 countries, 2020–40: a population-based modelling study." *EClinicalMedicine* 47 (2022)

Higher Gastric Cancer Incidence among non-White groups in California

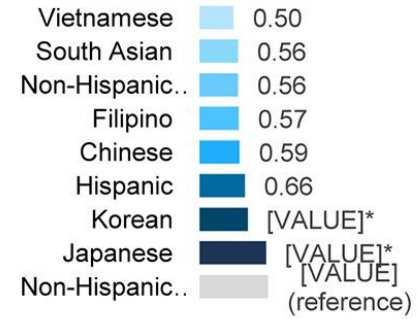
There are several-fold differences in the incidence of gastric adeno-carcinoma in specific anatomic sites among different race and ethnic groups in individuals age ≥50 years old.

These findings may inform risk reduction and early detection programs for gastric adenocarcinoma.

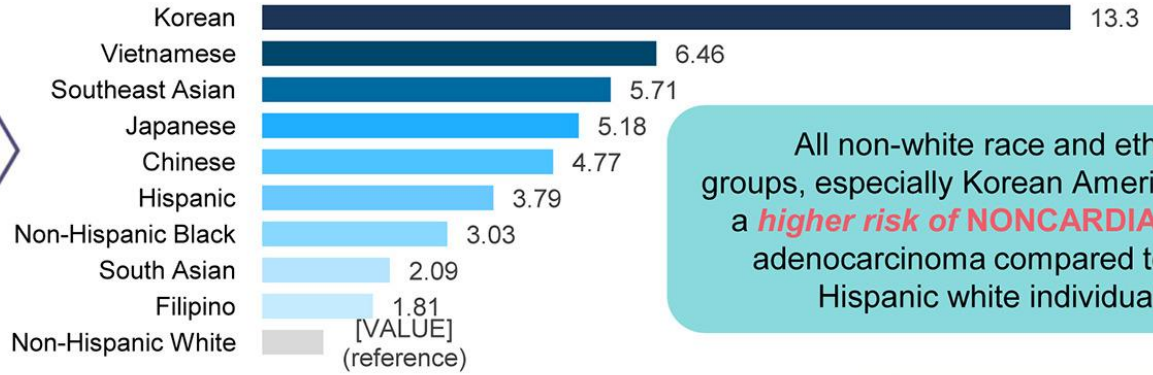
Shah SC, et al. 2020



Age- and sex-adjusted incidence rate ratios for individuals ≥50 years



All non-white race and ethnic groups, except Japanese and Korean Americans, had a ***lower risk of*** **CARDIA** gastric adenocarcinoma compared to non-Hispanic white individuals.

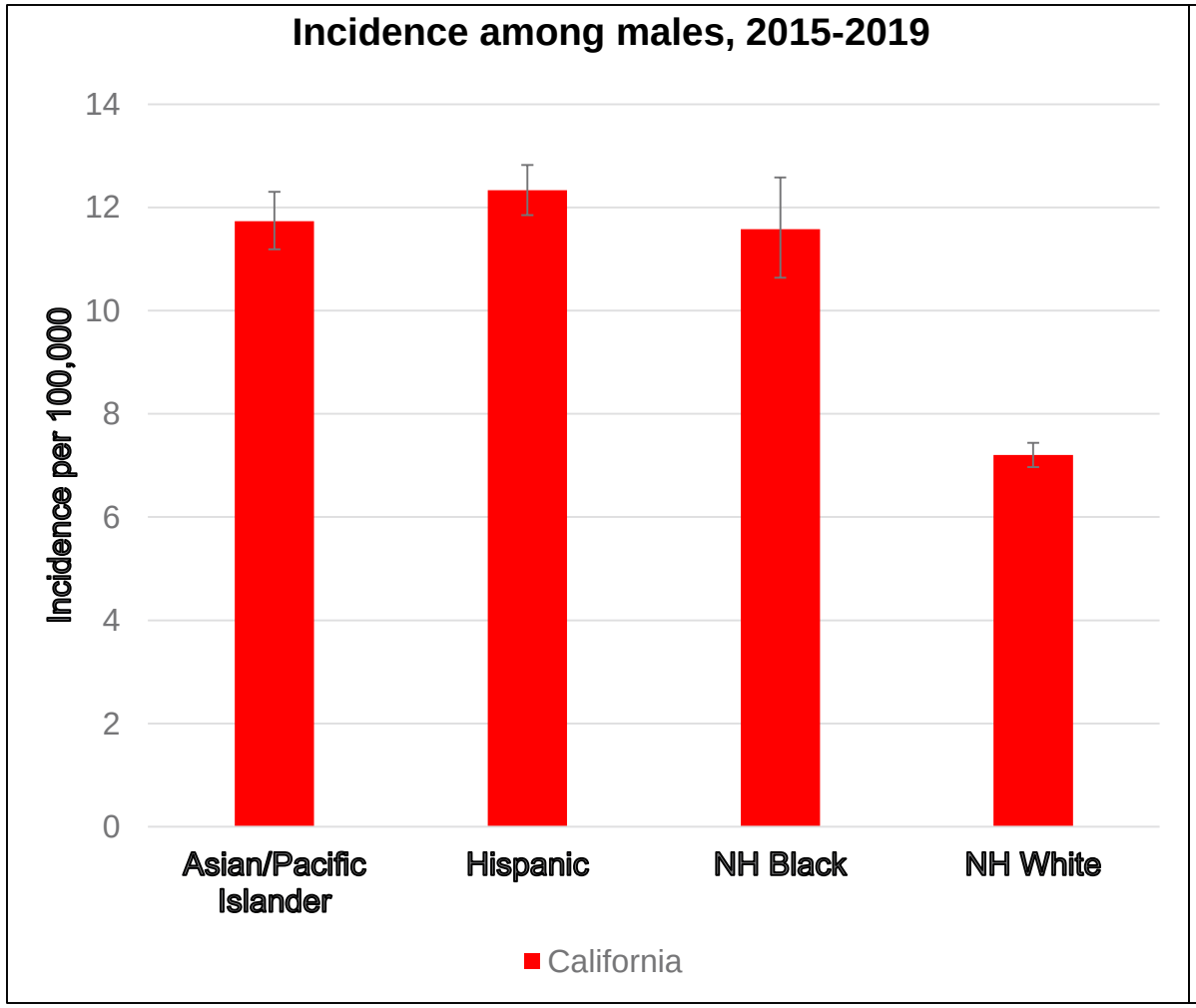


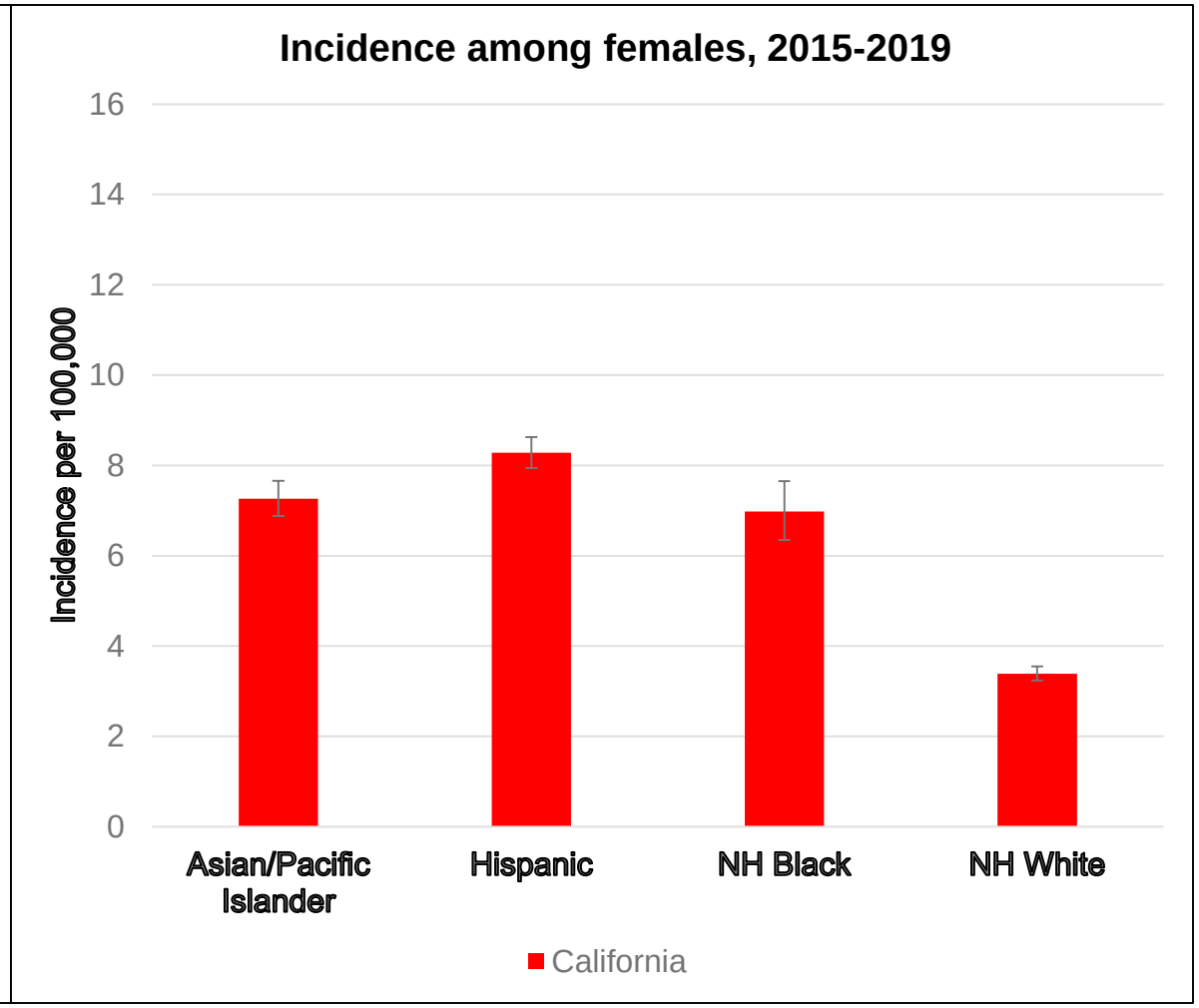
All non-white race and ethnic groups, especially Korean Americans, had a ***higher risk of*** **NONCARDIA** gastric adenocarcinoma compared to non-Hispanic white individuals

*Statistically non-significant
Data from California Cancer Registry (2011-2015)

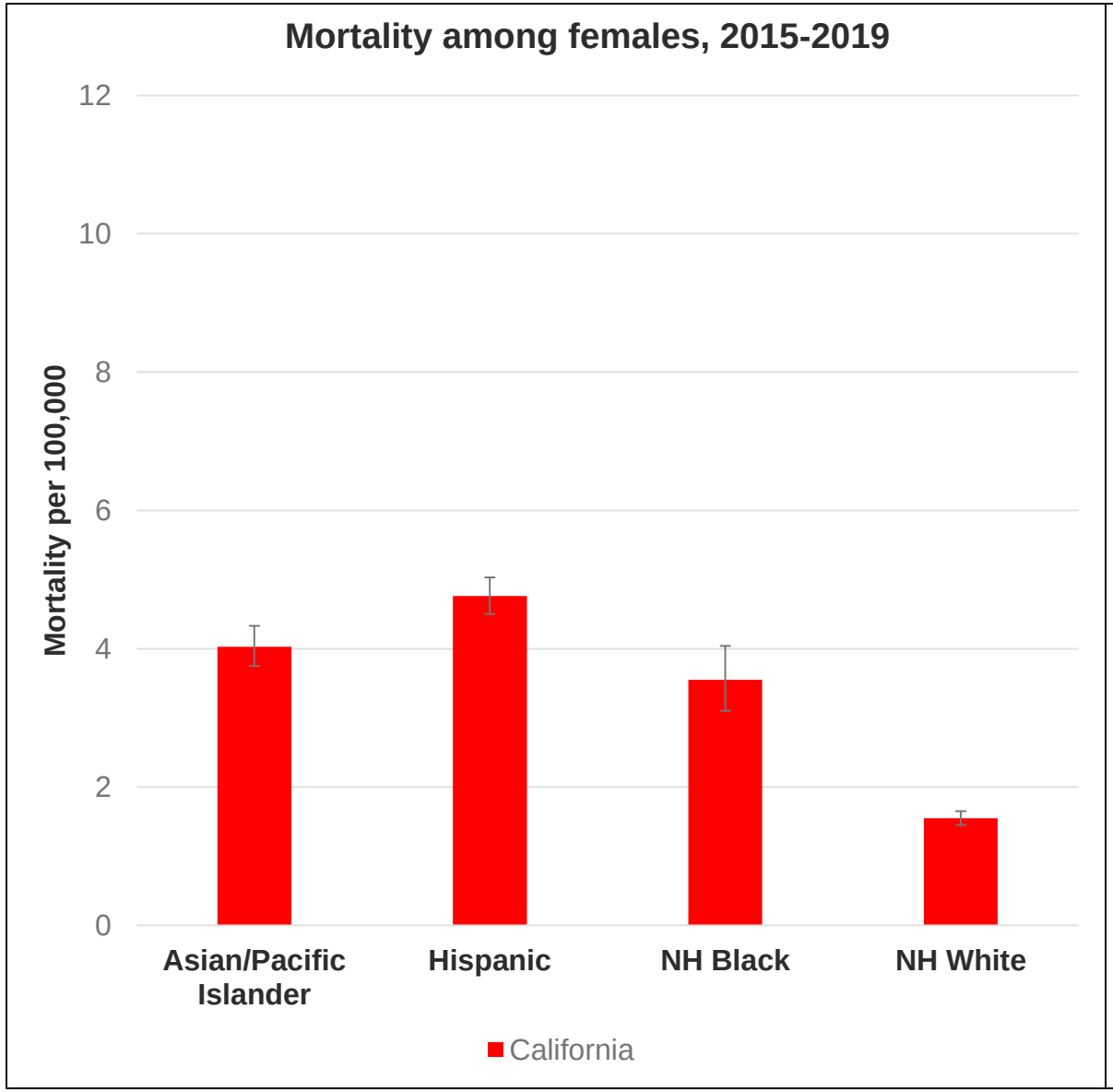
Gastroenterology

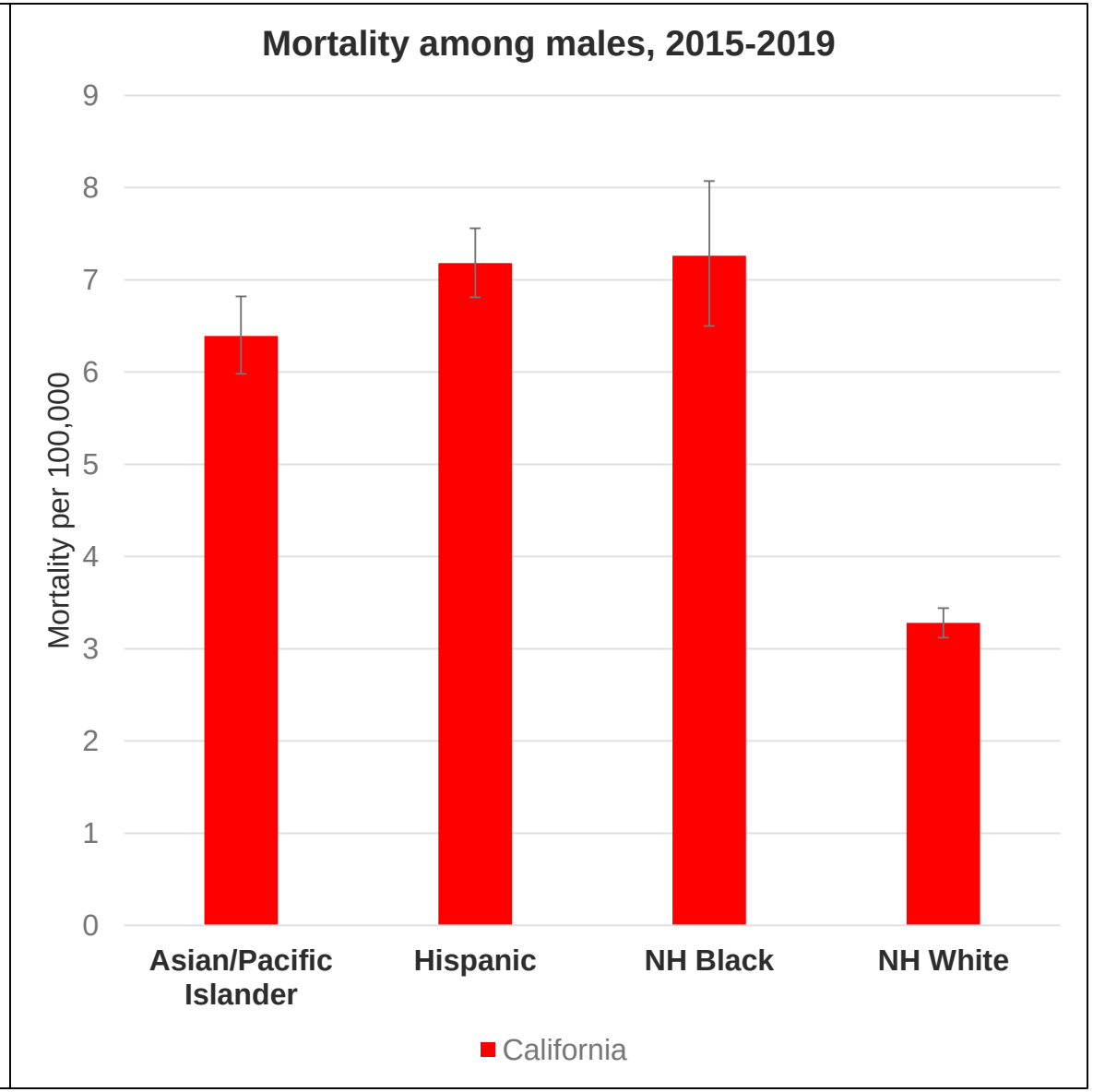
Higher Gastric Cancer Incidence among non-White groups in California





Higher Gastric Cancer Mortality among non-White groups in California





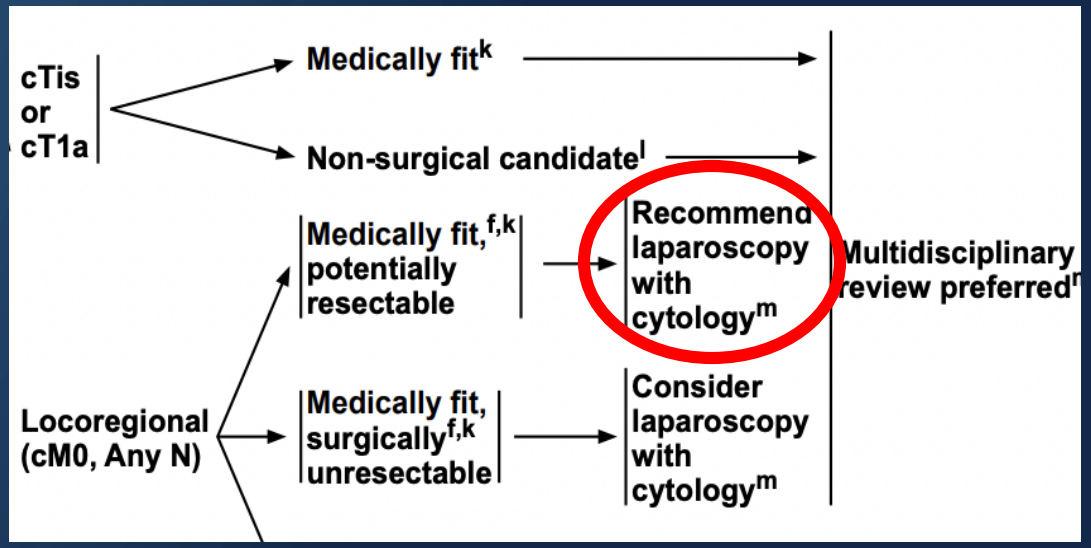
Gastric Cancer Staging and Treatment Algorithms (NCCN)

- H&P
- Upper GI endoscopy and biopsy[a]
- Chest/abdomen/pelvis CT with oral and IV contrast
- FDG-PET/CT evaluation (skull base to mid-thigh) for locally advanced or metastatic disease[b] or if clinically indicated
- CBC and comprehensive chemistry profile
- Endoscopic ultrasound (EUS) is recommended if early-stage disease suspected or if early versus locally advanced disease needs to be determined (preferred)
- Endoscopic resection (ER) is essential for the accurate staging of early-stage cancers (T1a or T1b).[c] Early-stage cancers can best be diagnosed by ER.
- Biopsy of metastatic disease as clinically

- Universal testing for microsatellite instability (MSI) by PCR/next-generation sequencing (NGS) or MMR by IHC is recommended in all newly diagnosed patients[d]
- HER2 and PD-L1 testing if metastatic disease is documented/suspected[d,e]
- NGS should be considered[d]

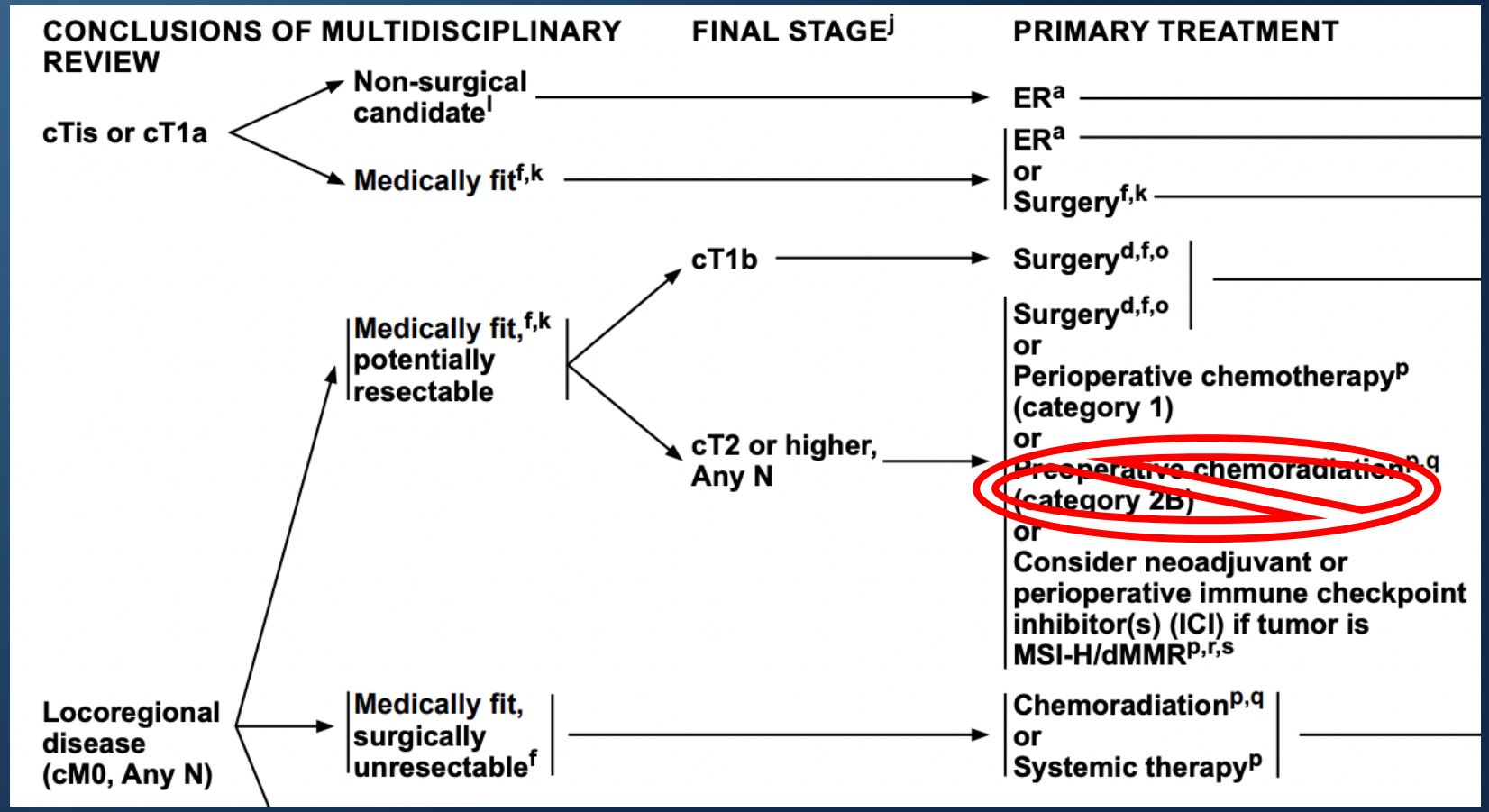
- Nutritional assessment and counseling
- Smoking cessation advice, counseling, and pharmacotherapy as indicated[g]
- Screen for family history[h]

- Assess *H. pylori* status and conduct genetic testing as needed[i]



Staging Laparoscopy Changes Treatment Decisions ~ 20 % of Patients

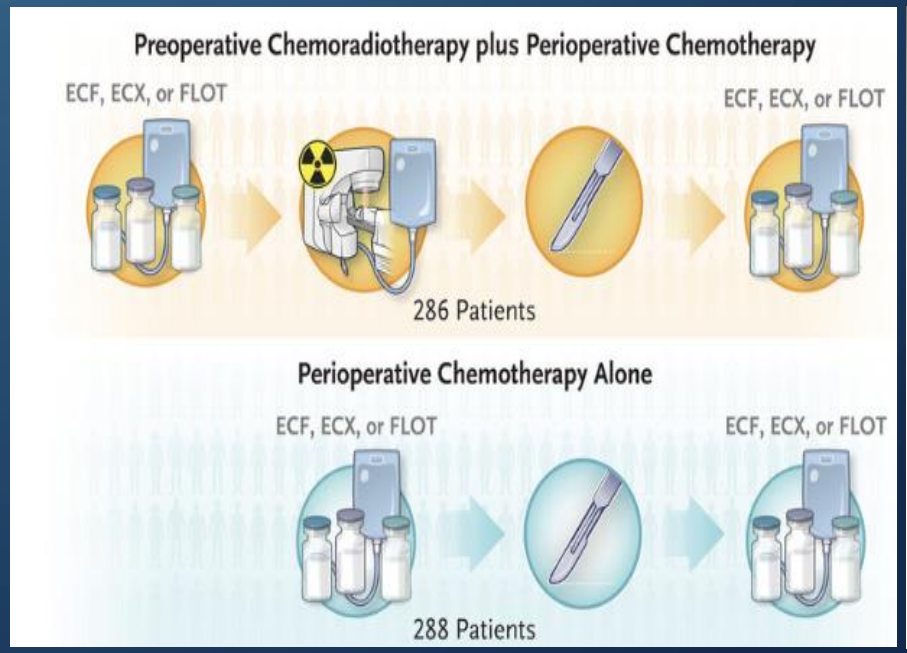
Gastric Cancer Staging and Treatment Algorithms (NCCN)

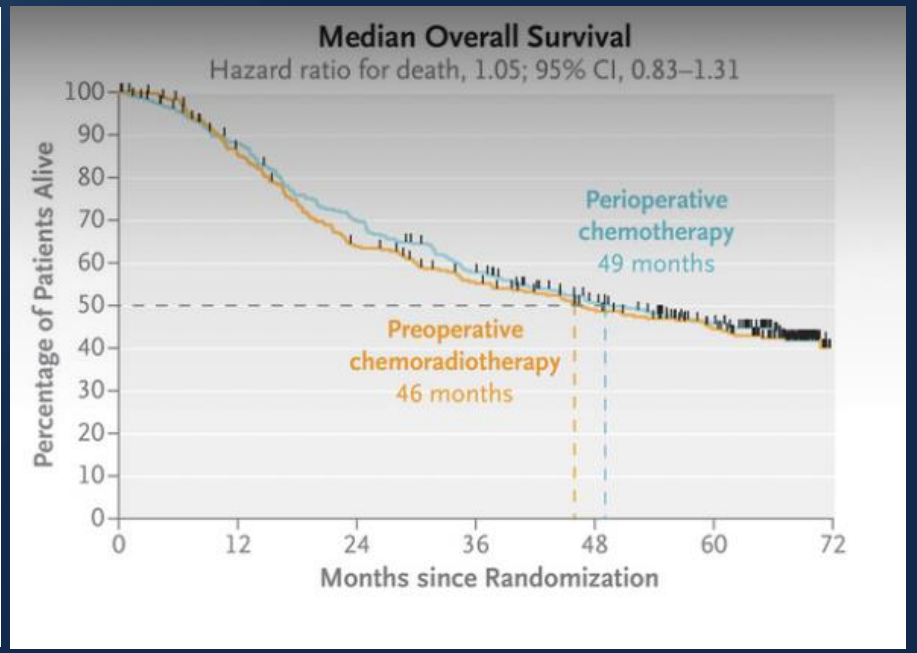


Preoperative Chemoradiotherapy for Resectable Gastric Cancer

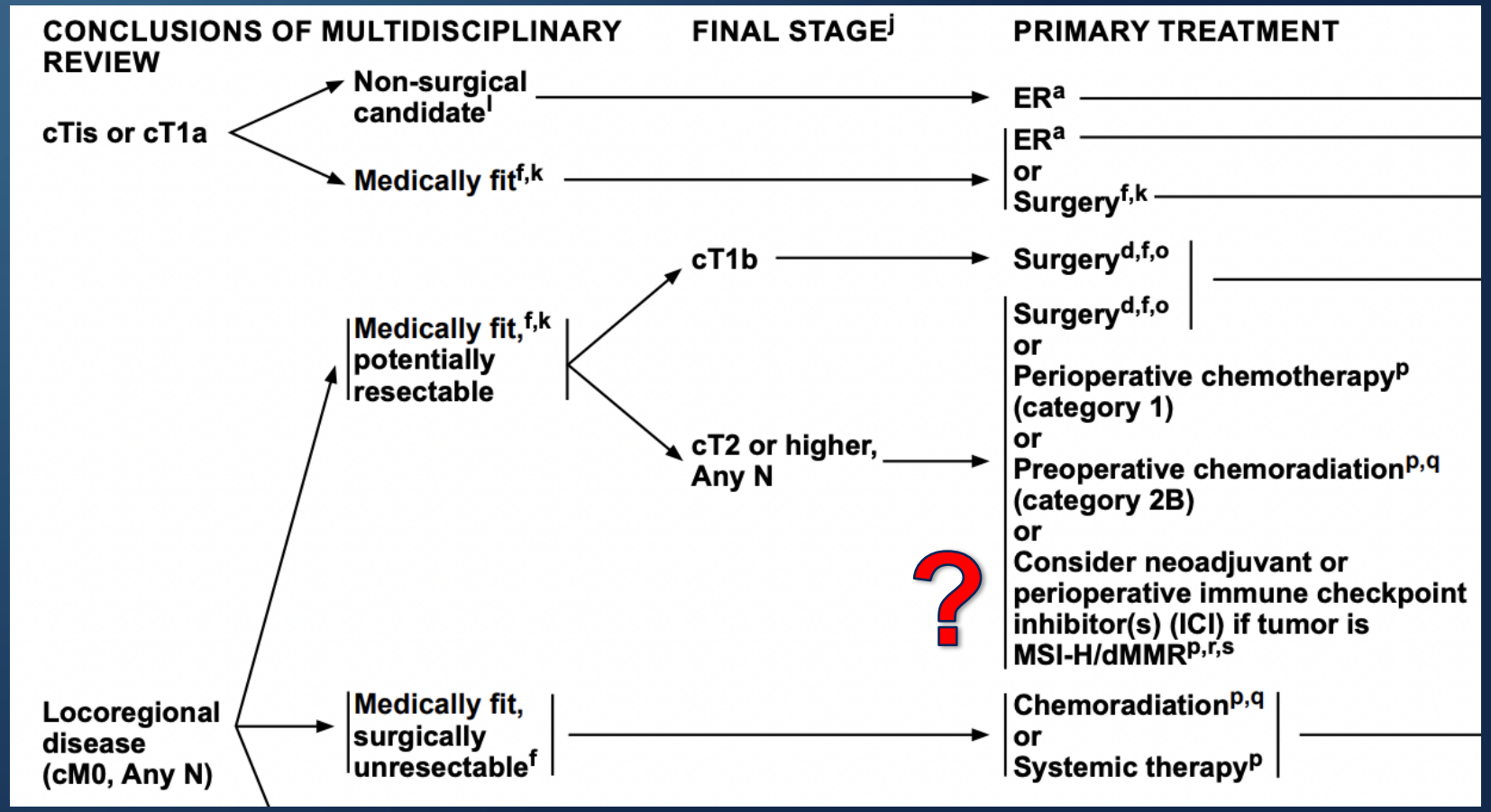
Authors: Trevor Leong, M.D., B. Mark Smithers, M.D., Michael Michael, M.D., Karin Haustermans, M.D., Rebecca Wong, M.D., Val Gebski, M.Stat., Rachel L. O'Connell, Ph.D., +15, for the Australasian Gastro-Intestinal Trials Group, National Health and Medical Research Council Clinical Trials Centre, Trans-Tasman Radiation Oncology Group, European Organisation for Research and Treatment of Cancer, and Canadian Cancer Trials Group* Author Info & Affiliations

Published September 13, 2024 | N Engl J Med 2024;391:1810-1821 | DOI: 10.1056/NEJMoa2405195





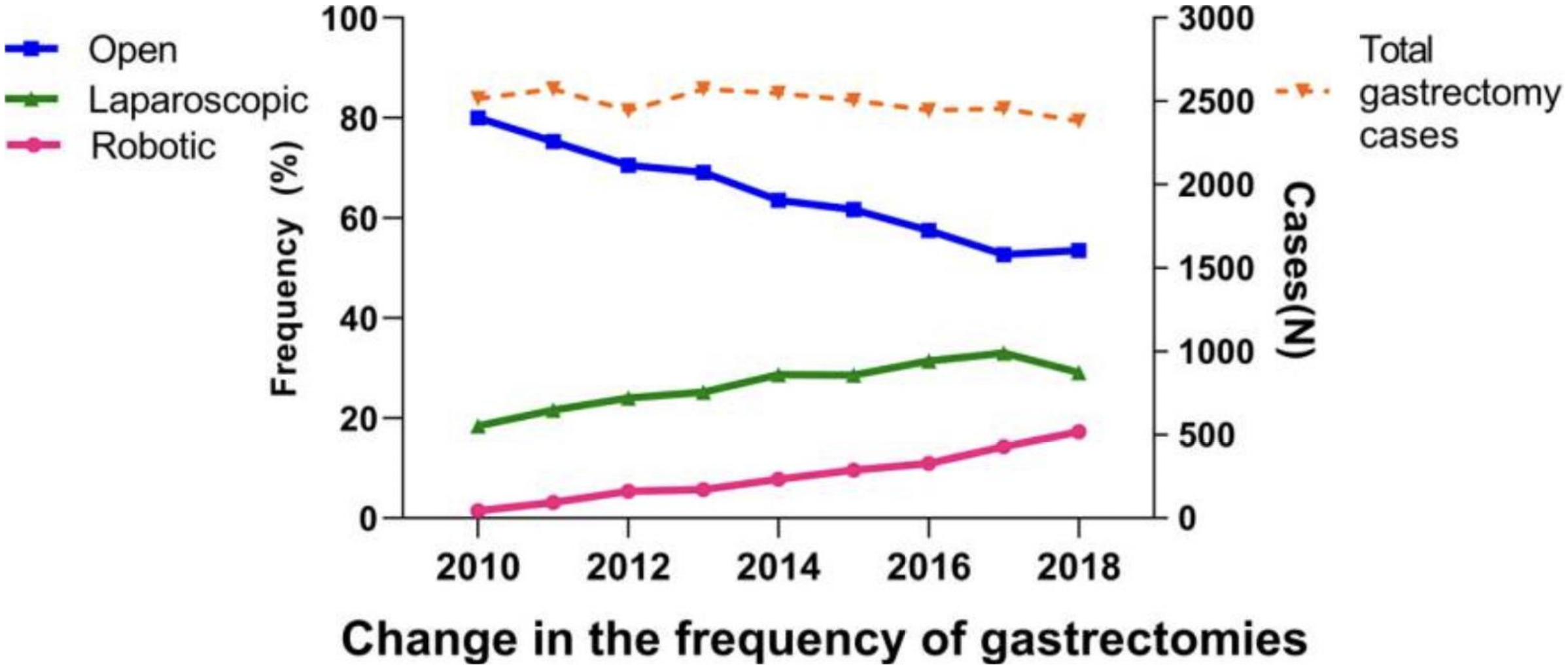
Perioperative Immunotherapy in MSI-H/d-MMR Gastric Cancer



Perioperative Immunotherapy in MSI-H/d-MMR Gastric Cancer

Clinical trials on immune checkpoint inhibitors for MSI-H/dMMR resectable GC in neoadjuvant chemotherapy						
NCT04556253	Not yet recruiting	II	MSI-H/dMMR gastric carcinoma	AK104 (a PD-1/CTLA-4 bispecific antibody)	Single group assignment: AK104	AK104 in Locally Advanced MSI-H/dMMR Gastric Carcinoma and Colorectal Cancer
NCT03257163	Recruiting	II	dMMR gastric cancer	Capecitabine embrolizumab	Single group assignment: Neoadjuvant pembrolizumab plus surgery plus adjuvant pembrolizumab+capecitabine+ radiation therapy	Pembrolizumab, Capecitabine, and Radiation Therapy in Treating Patients With Mismatch-Repair Deficient and Epstein-Barr Virus Positive Gastric Cancer
NCT04006262	Recruiting	II	MSI-H/dMMR esogastric adenocarcinoma	Ipilimumab Nivolumab	Single group assignment: Neoadjuvant ipilimumab+nivolumab plus surgery plus adjuvant nivolumab therapy	Perioperative Association of Immunotherapy (Preoperative Association of Nivolumab and Ipilimumab, Post-operative Nivolumab Alone) in Localized Microsatellite Instability (MSI) and/or Deficient Mismatch Repair (dMMR) Oeso-gastric Adenocarcinoma (NEONIPIGA)
NCT04744649	Recruiting	II	MSI-H gastric cancer	JS001 (recombinant humanized anti-PD-1 monoclonal antibody)	Parallel assignment: XELOX/SOX vs. JS001+XELOX/SOX	Neoadjuvant Immunotherapy and Chemotherapy for Locally Advanced Esophagogastric Junction and Gastric Cancer Trial (NICE)
NCT04795661	Recruiting	II	MSI/dMMR gastric cancer	Pembrolizumab	Parallel assignment: Cohort colorectal cancer (CRC) vs. esogastric cancer vs. endometrial cancer vs. other cancer	Immunotherapy in MSI/dMMR Tumors in Perioperative Setting (IMHOTEP)
NCT04817826	Recruiting	II	MSI-H gastric cancer	Durvalumab Tremelimumab	Single group assignment: T300/D as neoadjuvant (cohort 1) or definitive (cohort 2) treatment for MSI, mismatch repair deficient (dMMR) and EBV-negative resectable GAC/GEJAC	TremelImumab aNd Durvalumab For the Non-operatIve Management (NOM) of MSI-high Resectable GC/GEJC. (INFINITY)

Minimally Invasive Gastrectomy Uptake (NCDB)



Comparison of Long– and Short–term Outcomes in 845 Open and Minimally Invasive Gastrectomies for Gastric Cancer in the United States

Gastrointestinal Oncology | Published: 11 March 2021

- Median follow-up = 38.5 months.
- MIS vs. Open
  - = stage-stratified 5-year DSS
  - < complications
  - Robotic vs. Laparoscopic
    - < conversions to open,
    - < operative time,
    - > nodal harvest
    - < grade ≥3 complications
    - < postoperative stay
    - = DSS