PERMANENTE MEDICINE®

Opportunities for Decision Support Through the Use of EHRs

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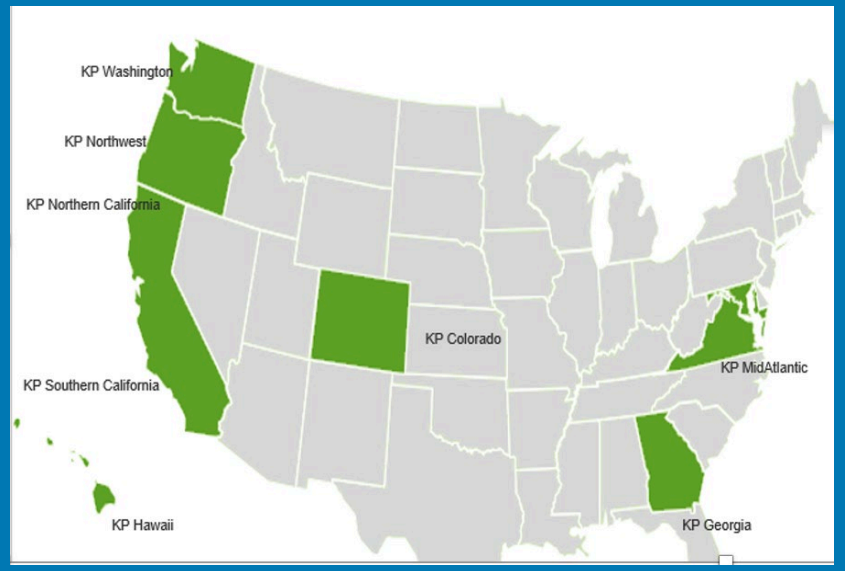
Kaiser Permanente at a glance



8 Regions

12.5M Members

24K+ Physicians	64K+ Nurses	217K+ Employees	39 Hospitals	720+ Medical Offices

305 Oncologists	150 Oncology Pharmacists	60K+ New Treatment Plans/Year

KP Beacon Oncology Module – EPIC electronic health record

Safe ordering and administration of cost-effective therapies by oncology providers

- Multidisciplinary InterRegional Collaborative Build Group 2005
- Includes MDs, PharmDs, RN and Beacon Builders
- Meet weekly to build and maintain all protocols

- Develop evidence based standardized protocols
- Implement best practices
- Incorporate drug use management initiatives
- Computerized Physician order entry

- Adult (510)
- Pediatrics (387)
- Clinical Trials (198)
- Non-oncology (100)
- **TOTAL PROTOCOLS - 1195**

KP National Oncology Drug Treatment Pathways

National agreement in 2018 to develop **internal** oncology treatment pathways

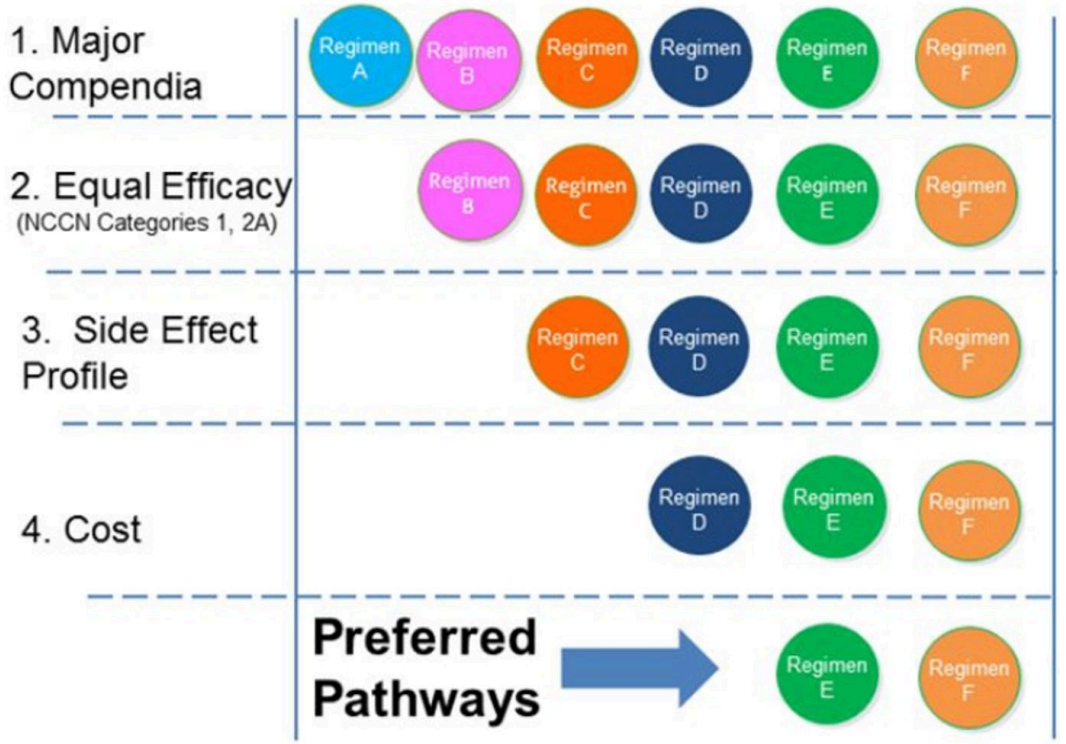
- Aligns with Kaiser Permanente's mission
- Ensures all patients receive high-quality, value centered care
- Leverages existing expertise within Kaiser Permanente
- EHR integration – Information and ordering in one place

…to provide high-quality, affordable health care services and to improve the health of our members and the communities we serve.

Kaiser Permanente Mission Statement

Decision Support Requirements

- Evidence based
- Efficacy, Toxicity and Cost to Organization
- Easy to Use – 3 additional clicks
- Up to Date – Edited quarterly
- Preferred vs Alternative Options
- Emphasis on Clinical Trials
- Includes Palliative Care/Hospice
- Feedback
- Metrics



Pathway Development

Organ System	Regional Subspecialty Draft	National Subspecialty Consensus	IR Oncology Chiefs Approval	Beacon Integration on Platform	Metrics
Breast	HR+(DCIS/LCIS, adj), HR+/HER2- (adj, met), HER2+ (adj, met), TNBC (adj, met), Supp Care				
Colorectal	CRC (Stage IV)				
Gastrointestinal	E/GEJ/GAC (met), ESCC (met), Pancreas (adj, met)				
Genitourinary	Prostate (nmHSPC,mHSPC, nmCRPC, mCRPC), Bladder (met), RCC (met)				
Gynecologic Oncology	Ovarian (Stage II/III/IV), Endometrial (advanced)				
Hematology-Benign	VTE				
Hematology-Malignant	APL, ALL, CML, CLL/SLL, DLBCL, FL, HL, MM, PCNSL, AML				
Melanoma	Melanoma (adj, in-transit, met)				
Thoracic	NSCLC (Stage II, III, IV), SCLC, Mesothelioma*				

EHR Integration

Viewable from KP Health Connect or Intranet
Orderable from the Patient Chart
Jump from chart to Clinical Library Home Page
#1-Click on Disease State
#2-View Protocol
#3-Click to Order Protocol and Jump back to Health Connect
Sign Protocol

KP Oncology Pathways

126 pathways

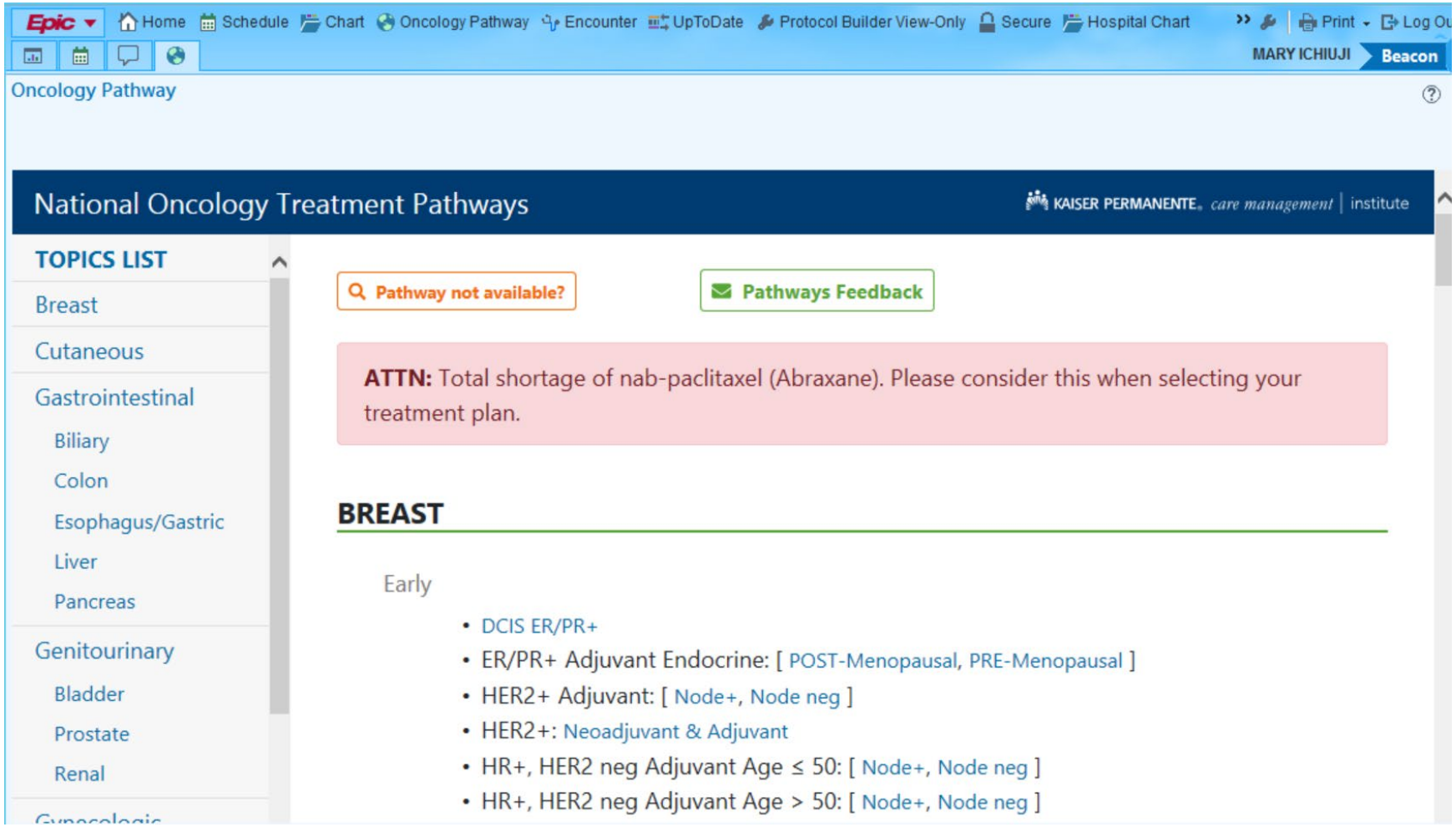
37 Disease Sites

Change Management

- Ability to address Severe Drug Shortages
- Ability to update pathway if drug indication withdrawn

Feedback button

Pathway not Available



KP Oncology Pathways

Available in *KPHC Beacon: Oncology Navigator*

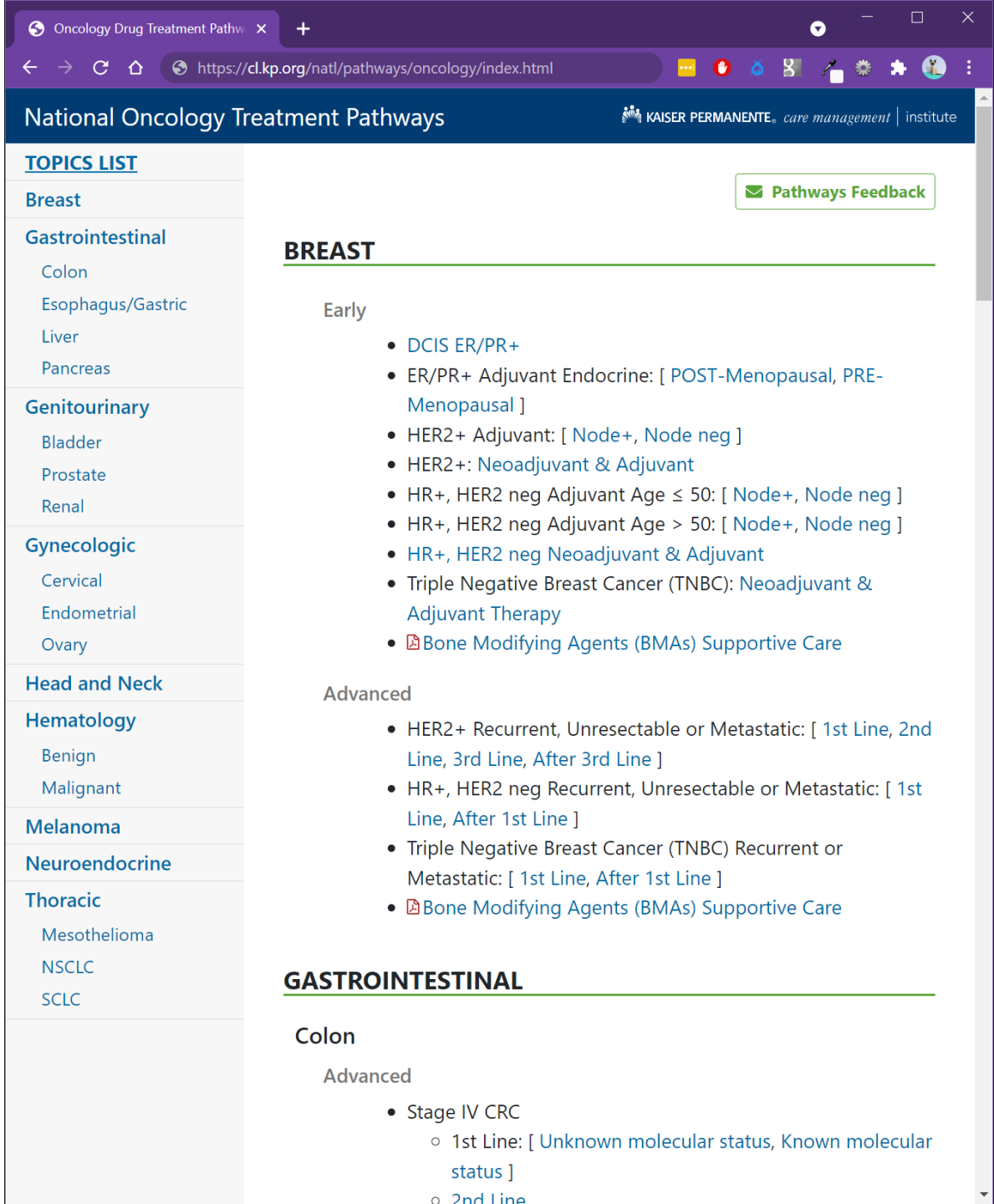
https://cl.kp.org/natl/pathways/oncology/index.html
or search "*oncology pathways*" on NATL Clinical Library site

The oncology pathways guide a clinician to treatment options for patients

A clinician will select:

- Topic *(Thoracic)*
- Type *(NSCLC)*
- Stage/Line of treatment *(Stage III or Stage IV 1st Line, 2nd Line)*

Each set of options provide a series of pathways to treatment.



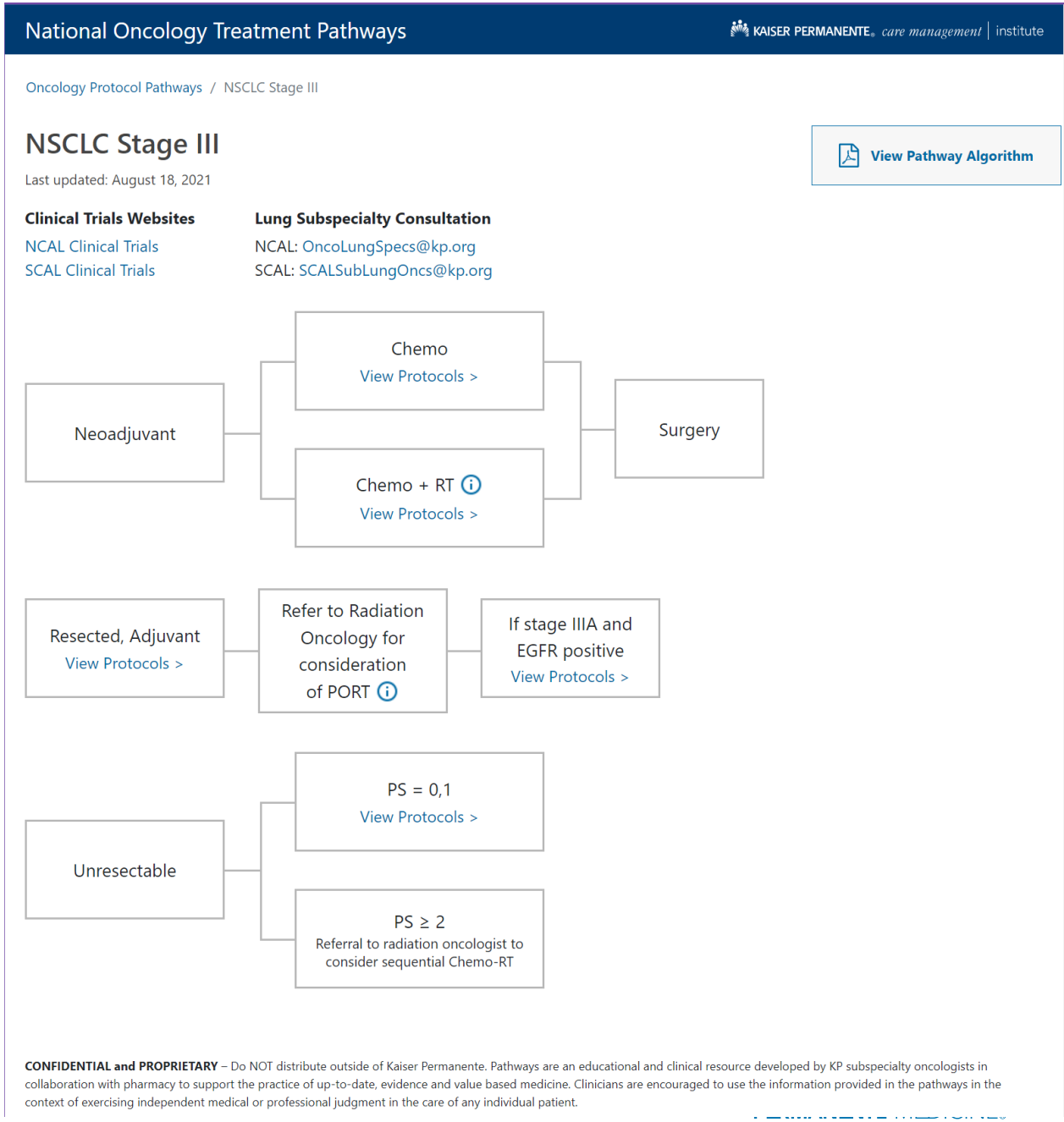
KP Oncology Pathways

Pathways pages contain:

- Subject-specific messages, like warnings (if relevant)
- PDF version of the Algorithm (to print/download)
- Links to relevant Clinical Trials websites
- Emails for Subspecialty Consultations

A quick scan of the left column directs a user to an algorithm that applies to their patient.

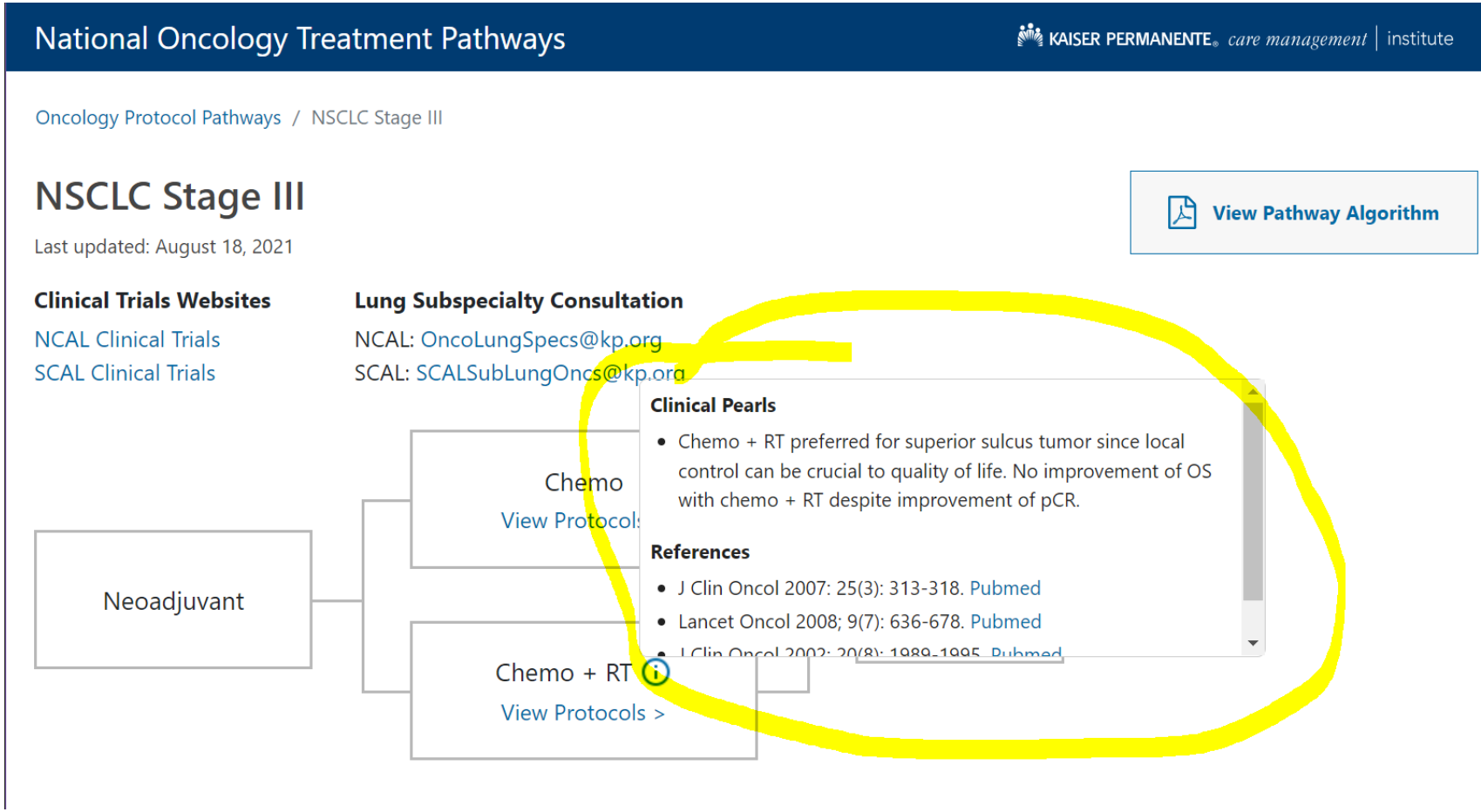
Each algorithm initiates a path to treatment in stepwise order.



KP Oncology Pathways

Hover to Discover specific information right where it is needed

- Clinical Pearls for drugs/doses or therapy
- Reference Links to relevant and timely journal articles in PubMed.



KP Oncology Pathways

Treatment options contain:

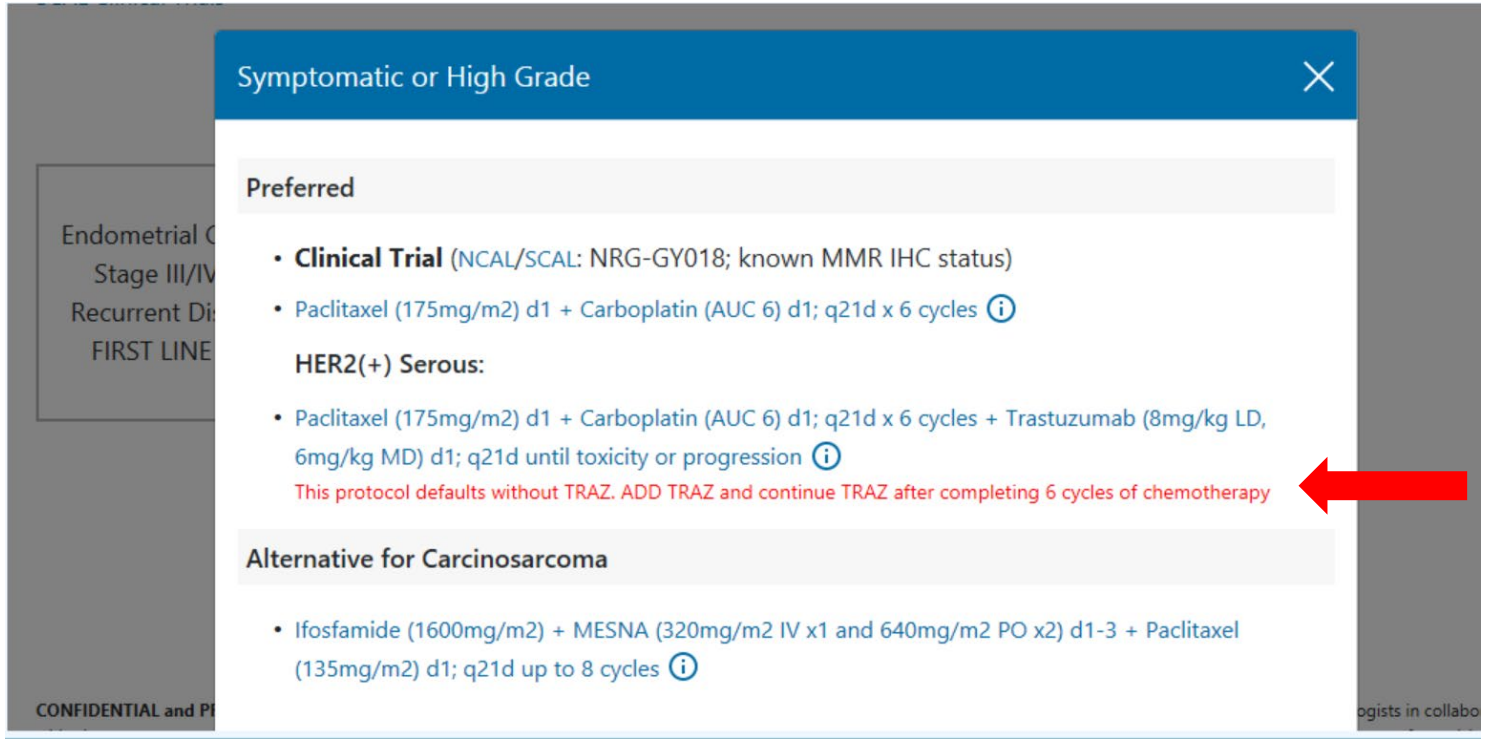
Preferred or Alternative protocols

Drugs + Dosing information

Red comments for necessary modifications to the defaulted Beacon protocol

Clinical Pearls (i)

Links to relevant Journal articles in PubMed (i)



National Oncology Pathways Usage Report

Version 1.0

- Tracks pathway usage rate
- Currently available
- Monthly report starting January 2021 to IR Oncology Chiefs

Version 2.0

- Ability to track preferred vs alternative vs off-pathway rate
- In progress

Over 2021, the data shows that clinicians in each region are increasingly adopting the National pathways
Able to measure usage by Region, Medical Center, Provider
Opportunities and Unresolved

KP Oncology Pathways Summary

- Multidisciplinary collaboration – MD, Pharmacy, Clinical Library & IT
- Made it easy to do the right thing for the patient
- Deliver Equitable care
- Seamlessly integrated into the workspace
- Easy to Use
- Up to Date information
- Developed Metrics to evaluate patterns of care
- Feedback loop

Future Vision
Digital Transformation of the Continuum of Cancer Care

Screening
- 42% of all cancers are preventable

Diagnosis
- Guided: doctors and patients

Treatment
- Expert and evidence driven: no low value care
- Guided: doctors and patients
- Digital self-care and psychosocial support

Survivorship
- No one falls through the cracks
- Healthy Lifestyle Engagement

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KAISER PERMANENTE® AT A GLANCE

World-class cancer care

Together …
We can achieve Anything

PERMANENTE MEDICINE®