







- Part of Valley Health System, Ridgewood, NJ
 - The Valley Hospital
 - Valley Home Care
 - Valley Medical Group











THE VALLEY HOSPITAL



- 451 bed acute-care, not-for-profit community
 Hospital in Northern New Jersey
- Over 1,100 Practitioners/Providers (MD, DO, PA, APN)
- Over 3,700 Employees
- 41,345 admissions (2020)
- 51,792 emergency department visits (2020)
- 3,528 births (2020)
- Affiliated with Mount Sinai Health System in New York City (32 km away)









THE "NEW" VALLEY HOSPITAL



- "A" patient safety grade from The Leapfrog Group
- Magnet Designation for Nursing Excellence since 2003
- Beacon Award designations for The Valley Hospital's Intensive Care, Neonatal Intensive Care, Coronary Care, Cardiac Surgery and Intermediate Care units
- Currently constructing a new, 372 bed hospital, opening April 2024









Meditech and Valley Health System

• MAGIC: 1995 – 2015

• 6x: 2015 – 2018

• Expanse: 2018 – Present

- Comprehensive use of almost every module, with the exception of Ambulatory.
- Office Practices use a separate EMR









About our Cancer Center



- Robert and Audrey Luckow Pavilion
 - Satellite facility of The Valley Hospital
 - Incorporates The Valley-Mount Sinai Comprehensive Cancer Center
 - Ambulatory infusion center
 - 23 infusion chairs
 - 1800 oncology treatments per month
 - Valley Medical Group Oncology services
 - 11 practitioners
 - >14,000 total cancer patient visits per year









Meditech Oncology Module Issues identified after building treatment plans

- Module imported diagnosis and indications from NCCN
 - Import Meditech STD Content Treatment Plans
 - Produced an excessive list of diagnoses and indications
 - Providers could not quickly find the desired regimen through the on screen clutter
 - Safety issue of providers choosing correct medications but doses are different
 - Ovarian cancer versus NSCLC
- Poor linkage to problems/diagnoses already filed prior to module being implemented







OPTIMIZING ONCOLOGY TREATMENT PLANS

Issue #1: Ability to order too many cycles









Best Practice and Quality Oncology Practice Initiative (QOPI) Standards

- QOPI Standards
 - 1.2.8 The chemotherapy treatment plan, including, at minimum, the patient diagnosis, drugs, doses, anticipated duration of treatment, and goals of therapy.
 - Can providers order more than the recommended cycles?
- Potential safety issue
 - Providers choosing metastatic plan (unlimited cycles) as opposed to neoadjuvant/adjuvant plans (limited cycles)









Utilizing Maximum Cycles

• Created separate plans for neoadjuvant/adjuvant and metastatic regimens

1	N.COL17.ONC.1	N.COL17.ONC.1	CapeOX Q21D
0	N.COL17NA.ONC.1	N.COL17NA.ONC.1	CapeOX Q21D









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Consecutive

Repeats

Utilizing Maximum Cycles, per indication

Neoadjuvant/adjuvant

Metastatic

Items

Associations

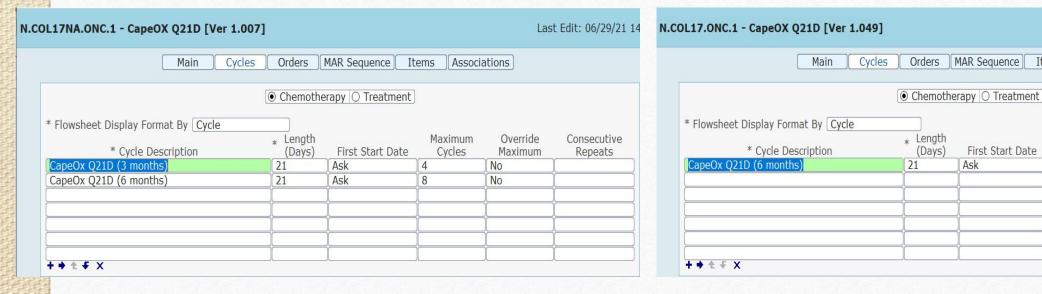
Override

Maximum

Yes

Maximum

Cycles









OPTIMIZING ONCOLOGY TREATMENT PLANS

Issue #2: Linkage by Diagnosis





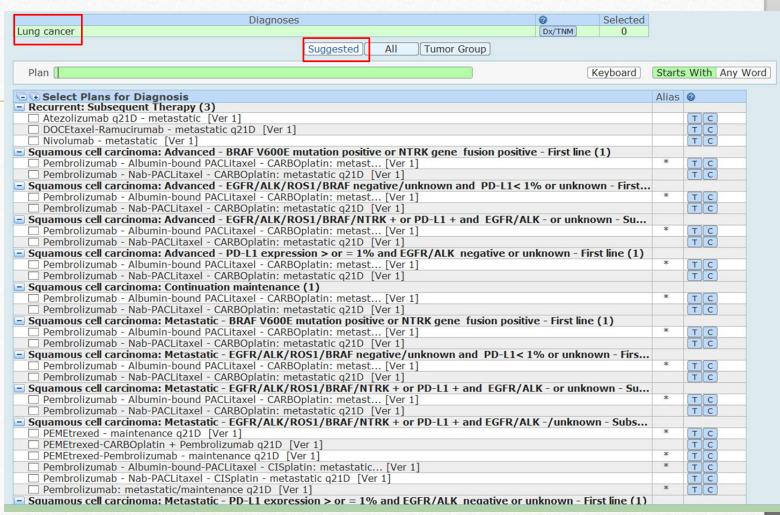




Too many plans to choose

from!

 Different Indications still presented the same plan







Post Cleanup



Diagnoses	0	Selected		
Anemia due to chemotherapy	Dx/TNM	0		
Anemia	Dx/TNM	0		
Malignant neoplasm of upper lobe, left bronchus or lung	Dx/TNM	0	100	
Suggested All Tumor Group				
Plan)	Keyboard	Starts With Any	Wo
Select Plans for Diagnosis			Allas 0	1
- ACUTE LYMPHOCYTIC LEUKEMIA: (2) Remission consolidation (1)				
☐ CALGB 10403 Remission Consolidation Therapy (Course 2) [Ver 1]			T	
ACUTE LYMPHOCYTIC LEUKEMIA: (3) Inverim maintenance (1)				
CALGB 10403 Interim Maintenance Therapy (Course 3) [Ver 1]			T	
ACUTE LYMPHOCYTIC LEUKEMIA: (4) Delayed intensification (1)				
□ CALGB 10403 Delayed Intensification Therapy (Course 4) [Ver 1]			(E)	
- ACUTE LYMPHOCYTIC LEUKEMIA: (5) Maintenance (1)				
CALGB 10403 Maintenance Therapy (Course 5) [Ver 1]			TP	
ACUTE MYELOID LEUKEMIA: (1) APL Induction (3)				
☐ Decitabline 20 mg/m2 (1-5) Q28D [Ver 1]			TC	
Low-Dose Cytarabine 20 mg/m2 (1-5,8-12) Q28D SubQ or IV [Ver 1]			TC	
☐ Tretinoin (ATRA)/Arsenic - Induction [Ver 1]			TC	
ACUTE MYELOID LEUKEMIA: (2) APL Consolidation (3)				
☐ Decitabine 20 mg/m2 (1-5) Q28D [Ver 1]			TC	
Low-Dose Cytarabine 20 mg/m2 (1-5,8-12) Q28D SubQ or IV [Ver 1]			T C	
☐ Tretinoin (ATRA)/Arsenic - Consolidation [Ver 1]			TC	
- AMYLOIDOSIS: (1) Primary treatment (1)				4
☐ Bortezomib/Cyclophosphamide/Dexamethasone + Daratumumab [Ver 1]			TC	
AMYLOIDOSIS: (2) Previously treated (1)			graves, process	
Daratumumab (IV/SubQ) Q28D [Ver 1]			TC	
AMYLOIDOSIS: (3) Relapsed (1)				
☐ Bortezomib/Cyclophosphamide/Dexamethasone + Daratumumab [Ver 1]			TC	
= ANAL: (1) Localized (3)				
CISplatin/Fluorouracil infusional w/concurrent radiation Q56D [Ver 1]			TC	
☐ Capecitabine/MitoMYcin w/concurrent radiation Q42D [Ver 1]			T C	
☐ Fluorouracii infusional/MitoMYcin w/concurrent radiation Q35D [Ver 1]			TC	
= ANAL: (2) Metastatic (8)			CONTRACTOR OF THE PARTY OF THE	4
☐ CISplatin/Fluorouracil infusional Q21D or Q28D [Ver 1]			TC	
CISplatin/Fluorouracil infusional w/concurrent radiation Q56D [Ver 1]			TC	
DCF modified Q14D [Ver 1]			T C	
FOLFCIS Q14D [Ver 1]				-
FOLFOX6 modified Q14D [Ver 1]			TC	
☐ Nivolumab 240 mg Q14D or 480 mg Q28D [Ver 1]			TC	





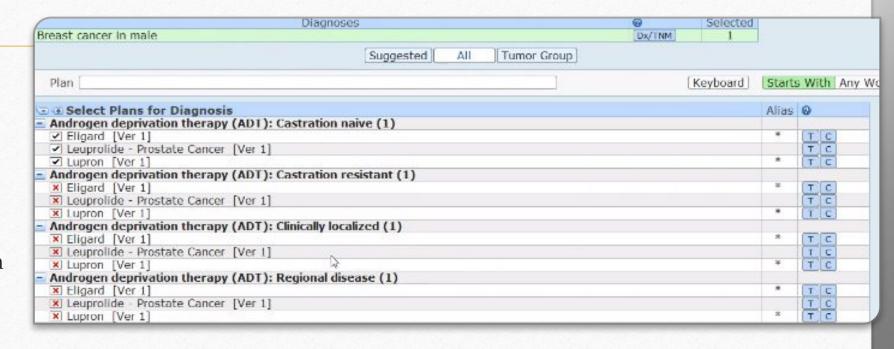




Same Plan, lots of duplication

- Multiple

 Indications for
 a Plan resulted
 in Duplication of
 the same Plan on
 the selection list.
- Cause
 of Confusion Am
 I ordering all those
 options?











Post Cleanup

	EFFE
PROSTATE: Androgen deprivation therapy (2)	Total Control
☐ Goserelin 3.6 mg Q28D or 10.8 mg Q84D [Ver 1]	T C
Leuprolide acetate (Eligard) [Ver 1]	TC
PROSTATE: Castration naive metastatic (1)	The state of the s
□ DOCEtaxel 75 mg/m2 Q21D [Ver 1]	TIC
PROSTATE: Castration resistant metastatic (6)	
CABAZItaxel/PredniSONE Q21D [Ver 1]	TC
☐ CARBOplatin/Etoposide 100 mg/m2 (1-3) Q21D or Q28D [Ver 1]	TC
☐ CISplatin/Etoposide (1-3) Q21D [Ver 1]	TC
☐ DOCEtaxel 50 mg/m2 (1, 15) Q28D [Ver 1]	T C T C T C T C
☐ DOCEtaxel/CARBOplatin Q21D [Ver 1]	TC
Pembrolizumab 200 mg Q21D or 400 mg Q42D [Ver 1]	TC
- PULMONARY: (1) Induction (1)	2010



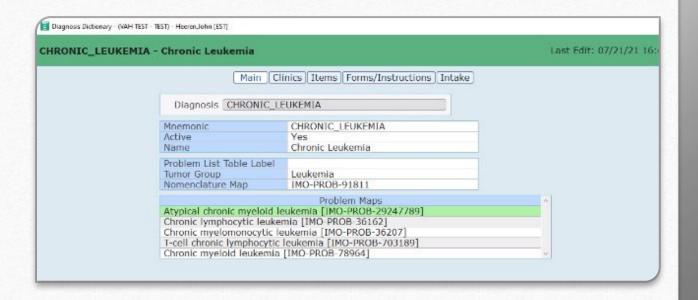






Diagnosis/Problem Maps

- Multiple Diagnosis linked to a Plan created the issue of duplication in the look up.
- How to streamline the Diagnosis Dictionary.
- Link all applicable problems to the main diagnosis.
- Reduced the Diagnosis Dictionary from 282 to 133 entries.









OPTIMIZING ONCOLOGY TREATMENT PLANS

Issue #3: Indications







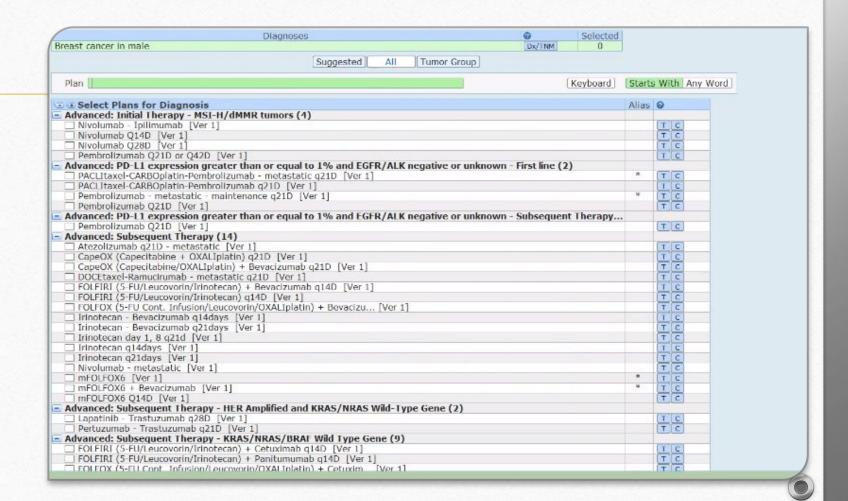


Physician Feedback

Why are there so many options?

I don't need this much detail.

Consolidate the list.









Indication Dictionary Standard Content

Search

- Plans display under the Indication from the plan
- Difficult to determine the link of Indication to Diagnosis.
- Excessive detail that the providers did not find beneficial

Name	Active	Mnemonic
* Clinical Trials *	No	Z.TRIALS
Adenocarcinoma	No	ADN
Adenocarcinoma	No	OCC,ADN
Adenocarcinoma: ECOG 0-1	No	ADN.ECOG
Adenocarcinoma: ECOG 0-1	No	OCC.ADN.EC
Adenocarcinoma: MSI-H/dMMR	No	ADN.MSI
Adenocarcinoma: MSI-H/dMMR	No	OCC.ADN.MS
Adenocarcinoma: TMB-H	No	ADN.TMB
Adenocarcinoma: TMB-H	No	OCC.ADN.TM
Adjuvant (Residual Disease)	No	AD1.RES
Adjuvant Therapy	No	VDI
Adjuvant: Dysgerminoma	No	ADJ.DYS
Adjuvant: EGFR/ALK/ROS1/BRAF positive	No	NSC.AD)+
Adjuvant: High Risk Disease - Subseque	No	ADJ.HRSUB
Adjuvant: If positive margins and in the	No	SBA.ADJ
Adjuvant: Primary Invasive Triple Negati	No	BRS.ADJTN
Advanced	No	ADV
Advanced or metastatic: Initial or subse	No	SBA.ADV
Advanced or metastatic: Initial or subse	No	SBA.ADV.MS
Advanced or metastatic: Subsequent the	No	SBA.ADV.SU







Indication Dictionary Post Cleanup

- Streamlined the Indication dictionary to the cancer type and stage of treatment.
- Inactivated 399 Indications
- Replaced with 200 Indications

Name	Active	Mnemonic
ACUTE LYMPHOCYTIC LEUKEMIA: (1) Ind	Yes	ALL.1
ACUTE LYMPHOCYTIC LEUKEMIA: (2) Re	Yes	ALL.2
ACUTE LYMPHOCYTIC LEUKEMIA: (3) Int	Yes	ALL.3
ACUTE LYMPHOCYTIC LEUKEMIA: (4) Del	Yes	ALL.4
ACUTE LYMPHOCYTIC LEUKEMIA: (5) Mai	Yes	ALL.5
ACUTE MYELOID LEUKEMIA: (1) APL Ind	Yes	AML.IND
ACUTE MYELOID LEUKEMIA: (2) APL Con	Yes	AML.CONS
AMYLOIDOSIS: (1) Primary treatment	Yes	AMYL.PRI
AMYLOIDOSIS: (2) Previously treated	Yes	AMYL, PREV
AMYLOIDOSIS: (3) Relapsed	Yes	AMYL.REL
ANAL: (1) Localized	Yes	ANA.LOC
ANAL: (2) Metastatic	Yes	ANA.META
BLADDER NON-UROTHELIAL: (1) Adenoc	Yes	BLAN.ADEN
BLADDER/UPPER GU/URETHRA: (1) Neoa	Yes	BLAGU.NEO
BLADDER/UPPER GU/URETHRA: (2) Adju	Yes	BLAGU.ADJ
BLADDER/UPPER GU/URETHRA: (3) Non	Yes	BLAGU.NON
BLADDER/UPPER GU/URETHRA: (4) Local	Yes	BLAGU.MET
BLADDER: (1) Organ preserving	Yes	BLA.PRES
BLADDER: (2) Palliation	Yes	BLA.PALL
BONE: (1) Unresectable, metastatic, rec	Yes	BONE.1







N.NSC26.ONC.1 - PEMEtrexed q21D [Ver 1.025]

N.NSC26.ONC.1

PEMEtrexed q21D

Oncology

Alias

Flowsheet Display

Orders Panel Label Sequence

Restrict by Location

Inpatient Treatment Plan Review Required By

Plan

Plan

Protocol Citations User Notes

Plan

O Yes

No

Treatment Plan N.NSC26.ONC.1

Mnemonic * Active * Name

Clinical Trial

BSA Method

Infusion-LP

Custom Data Screen

Clinic



Implementing Indication Dictionary Cleanup

Before

Orders MAR Sequence Items Associations

Override Drug Interactions

Oral Med Flowsheet Display

* Orderable ● Yes ○ No

Non-small cell lung cancer

Comment

Override Duplicate Interactions

Yes

No

Version 1.025

Diagnosis

Restrict by Provider

Outpatient Treatment Plan Review Required By

Last Edit: 12/08/20 15:06 (greater than or equal to 50%) - Subsequent Therapy Nonsquamous cell carcinoma: Advanced, EGFR/ALK/... Nonsquamous cell carcinoma: Continuation mainten...

Cancel Save

After

NSC26.ONC.1 - PEMEtrexed 500 mg/m2 Q21D [Ver	1.038] Last Edit: 09/21/21 09
Main Cycles Order	rs MAR Sequence Items Associations
Treatment Plan N.NSC26.ONC.1 Mnemonic N.NSC26.ONC.1	
* Active * Name PEMEtrexed 500 mg/m2 Q21D	
Clinic Oncology Clinical Trial O Yes O No Custom Data Screen BSA Method	Override Drug Interactions Override Duplicate Interactions Oral Med Flowsheet Display
Alias	Version 1.038 * Orderable ● Yes ○ No Comment
Flowsheet Display	Diagnosis Non-small cell lung cancer
Orders Panel Label Sequence	NSCLC: (8) Advanced, recurrent or metastatic – Non
Restrict by Location A	Restrict by Provider
Inpatient Treatment Plan Review Required By	Outpatient Treatment Plan Review Required By
Plan Pla Protocol Citati	an Plan User Notes Cancel S





Indications match Stage of Patient Therapy

Select Plans for Diagnosis	Alias	0
BREAST: (1) Ovarian Suppression (2)		
Goserelin 3.6 mg Q28D [Ver 1]		T C
Leuprolide Q28D or Q3months [Ver 1]		TC
BREAST: (2) Neoadjuvant – HER2 negative (13)		
AC + Pembro Q21D then PACLI(1,8,15)/CARBO(1,8,15) AUC 1.5/ [Ver 1]		TC
AC + Pembrolizumab Q21D then PACLI(1,8,15)/CARBO AUC 5/Pe [Ver 1]		TC
☐ AC Q21D [Ver 1]		TC
CMF Q21D [Ver 1]		TC
DDAC Q14D [Ver 1]		TC
DDAC Q14D followed by DD PACLItaxel Q14D [Ver 1]		TC
DDAC Q14D followed by weekly PACLItaxel [Ver 1]		TC
DDAC Q14D then PACLItaxel 80 mg/m2 Q7D [Ver 1]		TC
DOCEtaxel 75 mg/m2/CARBOplatin AUC 6 Q21D [Ver 1]		T C
☐ PACLItaxel 80 mg/m2 (1,8,15)/CARBOplatin AUC 1.5-2 (1,8,15) Q [Ver 1]		
PACLItaxel 80 mg/m2 (1,8,15)/CARBOplatin AUC 6 Q21D [Ver 1]		T C
TAC Q21D [Ver 1]		TC
□ TC Q21D [Ver 1]		TC
BREAST: (2) Neoadjuvant – HER2 positive (6)		-
DDAC Q14D followed by PACLItaxel(1,8,15)/Trastuzumab Q21D [Ver 1]		TC
□ DDAC Q14D followed by Pertzumab+Trastuzumab+PACLItaxel(we [Ver 1]		TC
DOCEtaxel/Cyclophosphamide + Trastuzumab Q21D [Ver 1]		TC
Pertuzumab + Trastuzumab + PACLItaxel 80 mg/m2 (1,8,15) Q21D [Ver 1]		TC
☐ TCH Q21D [Ver 1]		TC
TCHP Q21D [Ver 1]		T C T C T C T C
BREAST: (3) Adjuyant - HER2 negative (11)		
☐ AC + Pembro Q21D then PACLI(1,8,15)/CARBO(1,8,15) AUC 1.5/ [Ver 1]		TC
AC + Pembrolizumab Q21D then PACLI(1,8,15)/CARBO AUC 5/Pe [Ver 1]		TC
AC Q21D [Ver 1]		T C
CMF Q21D [Ver 1]		TC
□ DDAC Q14D [Ver 1]		TC
DDAC Q14D followed by DD PACLItaxel Q14D [Ver 1]		TC
DDAC Q14D followed by weekly PACLItaxel [Ver 1]		T C T C T C
DDAC Q14D then PACLItaxel 80 mg/m2 Q7D [Ver 1]		TC
1 DACITE 00 () / 0 / ELICADDO		Dec Carl







Customer (Physician) Satisfaction!











Optimizing Oncology Treatment Plans

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QUESTIONS?



