



Penn Medicine

An EHR-based documentation tool together with staging and patient reported outcomes (PROs) to improve evaluation of outcomes of patients with cancer

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Disclosures

None



The Problem and a Solution

- ▶ Critical patient evaluation data in free text, and inconsistently reported
- ▶ Obstacle to automated data extraction from EHR
- ▶ Need to better understand what leads the treating clinician to make the choices they do

- ▶ A “Smart Form” in the EHR:
 - Will prompt and facilitate collection of key data from clinician assessments of the treating clinician
 - The Smart Form will facilitate documentation, not add to it.
 - The data will be in structured format that can be extracted from the EHR

- ▶ The Smart Form, together with cancer staging and routinely collected PROs, and with other structured data in the EHR (drugs, doses, labs, etc) will give a comprehensive picture of cancer patients through their journey

Oncology Assessment & Plan

Primary cancer diagnosis	Malignant neoplasm of lower lobe of right lung (CMS-HCC) [1068967]	
Date of initial diagnosis	6/1/2021	<input checked="" type="checkbox"/> Approximate
Distant metastatic disease ever?	<input type="checkbox"/> yes <input type="checkbox"/> no <input type="text" value="N/A (hematologic malignancy)"/>	
Date of first distant metastatic diagnosis	1/22/2023	<input type="checkbox"/> Approximate
All sites of distant metastases ever	<input type="checkbox"/> liver <input type="checkbox"/> lung <input checked="" type="checkbox"/> brain <input type="checkbox"/> bone <input type="checkbox"/> other	
Current disease status	<input type="checkbox"/> no evidence of disease <input type="checkbox"/> responding <input type="checkbox"/> stable <input checked="" type="checkbox"/> progressing <input type="checkbox"/> undetermined <input type="checkbox"/> not evaluated	
Evidence for disease status	<input checked="" type="checkbox"/> imaging <input type="checkbox"/> pathology <input type="checkbox"/> symptoms <input type="checkbox"/> physical exam <input type="checkbox"/> lab results	
Overall clinical status	<input type="checkbox"/> improving <input checked="" type="checkbox"/> no change <input type="checkbox"/> declining	
ECOG PS	<input type="checkbox"/> 0 <input checked="" type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4	
Changing management* today?	<input checked="" type="checkbox"/> yes <input type="checkbox"/> no <i>*Unplanned, major changes only. Select "no" for temporary holds, dose mods, proceeding to the next phase of a planned protocol, etc.</i>	
Reason for change	<input type="checkbox"/> disease not responding <input checked="" type="checkbox"/> toxicity or adverse event <input type="checkbox"/> other	
Plan of care going forward	<input type="checkbox"/> evaluation <input checked="" type="checkbox"/> active therapy <input type="checkbox"/> supportive care only <input type="checkbox"/> surveillance	
Curative intent?	<input type="checkbox"/> yes <input checked="" type="checkbox"/> no	

Mark as Reviewed

These are some narrative comments



Oncology Assessment & Plan

Oncology Assessment & Plan

Primary cancer diagnosis

Malignant neoplasm of lower lobe of right lung (CMS-HCC) [1068967]

Date of initial diagnosis

6/1/2021

Approximate

Distant metastatic disease ever?

yes

no

N/A (hematologic malignancy)

Date of first distant metastatic diagnosis

1/22/2023

Approximate

All sites of distant metastases ever

liver

lung

brain

bone

other

Current disease status

no evidence of disease

responding

stable

progressing

undetermined

not evaluated

Evidence for disease status

imaging

pathology

symptoms

physical exam

lab results

Overall clinical status

improving

no change

declining

ECOG PS

0

1

2

3

4

Changing management* today?

yes

no

*Unplanned, major changes only. Select "no" for temporary holds, dose mods, proceeding to the next phase of a planned protocol, etc.

Reason for change

disease not responding

toxicity or adverse event

other

Plan of care going forward

evaluation

active therapy

supportive care only

surveillance

Curative intent?

yes

no

Mark as Reviewed

These are some narrative comments

My Note

Progress Notes • 6/22/2023 04:44 PM

Oncology Assessment & Plan

Summary:

12 B I U A [bulleted list] [numbered list] [table] [link] [undo] [redo] [help] [add]

Insert SmartText [undo] [redo] [refresh] [add] [image]

Malignant neoplasm of lower lobe of right lung (CMS-HCC)
Date of initial diagnosis: 6/1/2021 (approximate)
Distant mets ever? Yes - brain
Date of first distant metastatic diagnosis: 1/22/2023
Current disease status: progressing based on imaging
Overall clinical status: no change
Changing management today? Yes due to toxicity or adverse event
Plan of care going forward: active therapy without curative intent

These are some narrative comments

Last updated/reviewed: 6/22/2023

Extract from EHR Note

Malignant neoplasm of right breast in female, estrogen receptor positive (CMS-HCC)

Date of initial diagnosis: 6/29/2000
Distant mets ever? Yes - bone
Date of first distant metastatic diagnosis: 9/16/2017
Current disease status: responding based on symptoms, physical exam and imaging
Overall clinical status: no change
ECOG performance status: 0
Changing management today? No
Plan of care going forward: active therapy without curative intent

Last updated/reviewed: 5/28/2024

Last two responses to the oncology patient-reported symptom questionnaire:

Synopsis SmartLink Oncology PRO Questionnaire	4/26/2024 11:15	5/24/2024 10:46
Performance Status	Normal with no limitations	Normal with no limitations
Pain Frequency	Never	Never
Decreased Appetite Severity	None	None
Constipation Severity	None	None
Diarrhea Frequency	Never	Never
Nausea Frequency	Never	Rarely
Fatigue Interference w/ ADLs	Not at all	Not at all
Shortness of Breath Interference w/ ADLs	Not at all	Not at all
Anxiety Interference w/ ADLs	Not at all	Not at all
Sadness Interference w/ ADLs	Not at all	Not at all
Rash	No	No
Overall Quality of Life	Good	Good
Do you want help with any of your symptoms?	No	No

Re-envisioning the Paradigm for Oncology Electronic Health Record Documentation by Paying for What Matters for Patients, Quality, and Research

- ▶ And lack of structured data inhibits decision support, quality work and research
 - “....the basic data elements needed to calculate 17/19 clinical quality measures dictated by a major federal incentive program were unavailable as structured data for more than 99% of patients.”
- ▶ “...payment policy drives clinical documentation, leading to poor quality, low-value documentation that is not structured or computable and contributes to clinician burnout....”
- ▶ “.....what if clinicians were instead paid for documenting a minimum set of key clinical elements in a standardized and structured format at every visit?”