

MITRE / FLUX NOTES **CONCEPTS 14.16**

EDWIN CHOI, DANIEL REEVES, JUHAN SONIN, 7.NOV.2018



Review of Systems

Dr. Bran24 Michel09A

Debra24

Hernandez98Aj

Date of birth

5 Apr 1966 (51)

Admin. sex

Female

Location

Boston, MA

ROS currently displays only one date. Pagination is used to support questions in excell of 10.

Suggestion: paginate dates, and use two columns to present all questions at once.

Dr. Jraker299 referred ms. Debra24 Hernandez98Aj due to pain in left breast. Dr. Jraker299 is ms. Debra24 Hernandez98Aj's primary care physician for 12 years.

Ductal carcinoma of the breast

Debra24 search...

Summary

Timeline

Medication

Allergies

Labs

Social

Disease status

Review of Systems

Gastrointestinal stromal tumor

3 Mar 2017	Author: Joyce Byers111	2 of 15 positive	
Headaches	Yes	Hot flashes	No
Rashes	Yes	Nausea	No
Abdominal pains	No	Pain	No
Bloody stools	No	Stomach aches	No
Chest pains	No	Uncomfortable sensations of difficulty breathing	No
Coughing	No	Vertigo	No
Diarrhea	No	Vomiting	No
Fevers	No		
29 Jan 2017	Author: Joyce Byers111	1 of 15 positive	
23 Dec 2016	Author: Joyce Byers111	4 of 15 positive	
15 Dec 2016	Author: Silvia Perez221	0 of 11 positive	

1-4 entries of 23

Prev123...6Next

@

0

New note

Sort by most recent

+ Search filters

47 previous notes

2 Aug 2017
Clinical follow-up
Dr. Free2 Will
Dana Farber Cancer Insti...

20 Jun 2017
Clinical follow-up
Dr. Free2 Will
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View 10 more clinical notes from 2015 - 2017



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✓ 3 Mar 2017 Author: Joyce Byers111
2 of 15 positive

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notes from 2015 - 2017

POC improvements

- remove the “done” box, and replace with active text “skip”, “done”, and “edit”
- shift expand arrow to left of current key (e.g. “Status”)
- reword add toxicity to “add another toxicity” and shift to left hand side

Ductal carcinoma of the breast

Debra24 search...

Close



el09A

created date: 10 April 2018

source: Dana Farber Cancer Institute

Summary

Timeline

Medication

Allergies

Labs

Social

Disease status

Hernandez98Aj due to pain in her breast. Dr. Jraaker299 is ms. Debra24 Hernandez98Aj's primary care physician for 12 years.

Summary



Ms. Debra24 Hernandez98Aj is a 51-year-old menopausal non hispanic or latino woman with invasive ductal carcinoma of the breast, diagnosed on 13 January 2012. Her most recent status, recorded on 15 May 2017, is of worsening, disease progression based on pathology, imaging, and symptoms.

She underwent a lumpectomy. She underwent a sentinel lymph node biopsy on 20 September 2012 which revealed infiltrating poorly differentiated ductal carcinoma, stage IV, estrogen receptor 0, etc.

diagnostic mammogram on 4 October 2013 revealed a 2 cm mass in the right breast at 7 o'clock and an

#Disease status Status No data Reason No data Reference date No data As of date No data skip

> Status Complete response Complete resection Responding Stable Progressing Inevaluable

#Staging Tumor size T1 Node size N2 Metastasis No data done

> Metastasis M0 M1

#toxicity Adverse event Nausea Grade No data Attribution No data done

Nausea > Grade Grade 1 Grade 2 Grade 3 Grade 4 remove toxicity

Adverse event Nausea Grade No data Attribution No data done

Nausea > Grade Grade 1 Grade 2 Grade 3 Grade 4 remove toxicity

+ add another toxicity

#HER2 Receptor Negative edit

Delete note

1 incomplete 3 Placeholder

Sign note

#Disease status

Status No dataReason No dataReference date No dataskip

As of date No data

> Status

Complete response	Complete resection	Responding	Stable
Progressing	Inevaluable		

do not break within a key “As of date”

keep key (Status) centered on the first line of buttons

#Staging

Tumor size T1Node size N2Metastasis No datadone

Grade

T0	T1	T2	T3
----	----	----	----

Node size

N0	N1	N2	N3
----	----	----	----

Metastasis

M0	M1
----	----

#toxicity

Adverse event NauseaGrade No dataAttribution No datadone

Nausea > Grade

Grade 1	Grade 2	Grade 3	Grade 4
---------	---------	---------	---------

remove toxicity

move “remove toxicity” below selector and provide ample space

Adverse event NauseaGrade No dataAttribution No datadone

Nausea > Grade

Grade 1	Grade 2	Grade 3	Grade 4
---------	---------	---------	---------

remove toxicity

+ add another toxicity

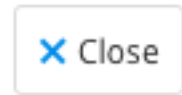
#HER2

Receptor Negativeedit

Low Cost Styling Improvements

Several very simple changes that bring Flux Notes more in line with current designs. Big visual bang per buck.

Buttons



No drop shadows.

Preferred

Grade 1	Grade 2	Grade 3	Grade 4
---------	---------	---------	---------

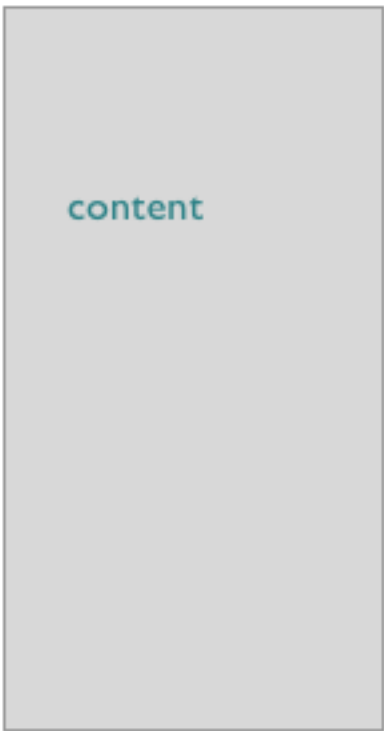
On selectors, overlap inner borders to make a single continuous selector.

Fallback

Grade 1	Grade 2	Grade 3	Grade 4
---------	---------	---------	---------

Round outer edges only, and not inner edges. If not possible, do not round any edges.

Scrollbar

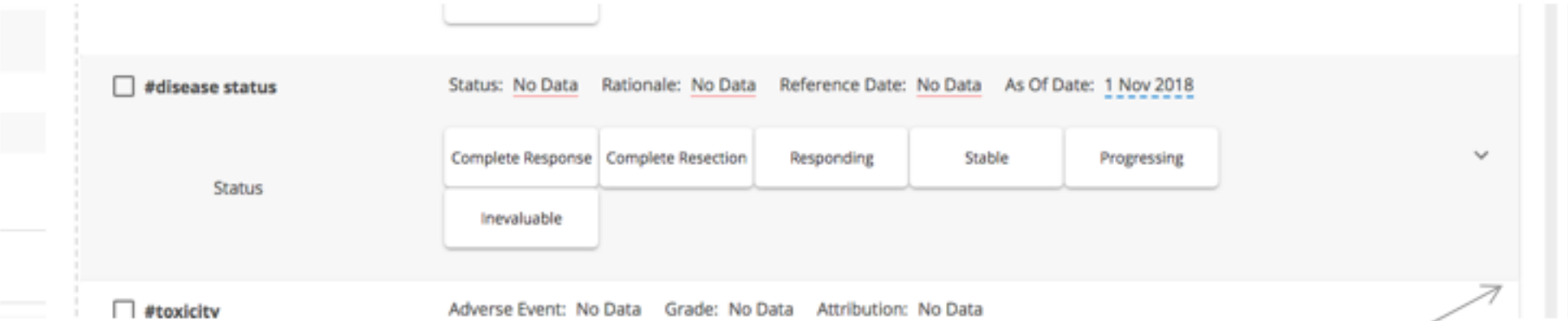


```
width = 12
::-webkit-scrollbar-thumb {
  border-radius: 6px;
  background: #F0F0F0;
  /* -webkit-box-shadow: inset 0 0 5px
  rgba(0,0,0,.5); */
}
::-webkit-scrollbar-thumb:hover {
  background: #DDDDDD;
}
```

no drop-shadow
new color
round edges

maintain padding
between content and
scrollbar

POC table style



Remove drop shadow for .jss4

Note Styling

screenshot of current
note typeface: I em, Georgia

inoma of breast
up

oma of bre...
e ductal
ma of breast

neither improving
rsening

2018
g Data

3
8 Oct 2017)

Treatment Check-in
Signed by: Dr. Smith952
Source: Hospital X

Signed date: 18 Oct 2018

Close

+ New

6 previous

18 Oct 20
Treatmer
Hospital)

28 Jun 20
Pre-chem
Hospital)

15 Jun 20
Treatmer
Hospital)

16 Aug 20
Ultrasour

B I U ||| |||

REASON FOR VISIT:
Treatment Progress

HISTORY OF PRESENT ILLNESS:
Ms. Ortiz is a 43-year-old premenopausal Hispanic woman who had an unremarkable mammogram March 3, 2013. She felt a sharp pain in her right breast about 8 months later and a palpable lump two months after that. A diagnostic mammogram on November 13, 2015, showed unremarkable views of the right lower outer quadrant; however only an indeterminate lymph node in the right axilla, 13 mm, was apparent. A right targeted spot compression breast ultrasound of the palpable lump on November 29, 2015 revealed a mass at 7 o'clock measuring 1.6 cm, indeterminate right axillary lymph nodes, measuring 1.4 cm with the cortex of 3 mm - indeterminate, and another measuring 12 mm with cortex of 4 mm - indeterminate. She underwent right breast mass core biopsy and right axillary lymph node core biopsy on November 29, 2015 which revealed infiltrating poorly differentiated ductal carcinoma, grade 3, estrogen receptor 0, progesterone receptor weakly positive 1% to 4%, HER2 was negative 0%,

Template Styling

Styling of template sectioning should match the targeted data panel styling.
Section headings are in **Bold Title Case**.

Reason for Visit:
Treatment Progress

History of Present Illness:
Ms. Ortiz is a 43-year-old premenopausal Hispanic woman

screenshot of current designs
note typeface: 0.9 em, Open Sans

ductal
ia of breast

either
g nor
18
2018
Data

Oct 2017)

Treatment Check-in
Signed by: Dr. Smith952
Source: Hospital X

Signed date: 18 Oct 2018

Close

+ New no

6 previous note:

18 Oct 2018
Treatment Chec
in

B I U ||| |||

REASON FOR VISIT:
Treatment Progress

HISTORY OF PRESENT ILLNESS:
Ms. Ortiz is a 43-year-old premenopausal Hispanic woman who had an unremarkable mammogram March 3, 2013. She felt a sharp pain in her right breast about 8 months later and a palpable lump two months after that. A diagnostic mammogram on November 13, 2015, showed unremarkable views of the right lower outer quadrant; however only an indeterminate lymph node in the right axilla, 13 mm, was apparent. A right targeted spot compression breast ultrasound of the palpable lump on November 29, 2015 revealed a mass at 7 o'clock measuring 1.6 cm, indeterminate right axillary lymph nodes, measuring 1.4 cm with the cortex of 3 mm - indeterminate, and another measuring 12 mm with cortex of 4 mm - indeterminate. She underwent right breast mass core biopsy and right axillary lymph node core biopsy on November 29, 2015 which revealed infiltrating poorly differentiated ductal carcinoma, grade 3, estrogen receptor 0,



Currently, the dropdown context menu presents very limited information. External sources appear in jarring overlay.

Suggestion: include as much information as possible in the dropdown itself, and avoid overlays.

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Summary

Timeline

Medication

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Labs

Social

Disease status

Headaches	Yes
Rashes	Yes
Abdominal pains	
Bloody stools	
Chest pains	
Coughing	No
Diarrhea	No
Fevers	
Headaches	
Rashes	Yes
Abdominal pains	No
Bloody stools	No
Chest pains	
Coughing	
Diarrhea	
Fevers	

+ insert "Rashes: Yes"

open source note12/23/2017Dr. Free2 Will

+ insert "Diarrhea: No"

source

Diarrhea: No

Recorded by Judy Smith332 based on information from Dr. Mona341 brown483 from encounter on 19 Mar 1616 09:53 am.

+ insert "Rashes: Yes"

source

Recorded by Judy Smith332 based on information from Dr. Mona341 brown483 from encounter on 19 Mar 1616 09:53 am.

"Insert" command should could insert the key:value as text, rather than just the value.

If note is available, give date in dropdown menu, and perhaps doctor as well.

Two ways to present data without note: hiding in child window or always present.



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View 10 more clinical notes from 2015 - 2017



Labs and Vitals: Integration of tables and charts

Dr. Bran24 Michel09A Hernandez98Aj 5 Apr 1966 (51) Female Boston, MA

The current labs and vitals displays suffer from several shortcomings:

1. It is not possible to quickly browse all the most recent values
2. While the charts have detail and indicate trending, they are large and inefficient to page through.

Concept: Table has one row per lab/vital and displays most recent measurement. Each row also carries high priority historical information, and can be expanded to show the full history.

Approach: Use a sparkline to display trending and warning information, and indicate min/max values over the trendline period to indicate measurement range.

Ductal carcinoma of the breast ▼

Debra24 search...

Timeline

Medication

Allergies

Treatment Options

Social

Disease status

Labs Ductal carcinoma of the breast

Labs (5)
sparkline 6 months ▼

<u>Hemoglobin</u>		<u>15%</u>	19 10	12.Oct.18
<u>WBC count</u>		<u>6.74 10⁹/L</u>	8.12 1.86	12.Oct.18
<u>Blood urea nitrogen</u>		<u>120 mg/dl</u>	200 90	12.Oct.18
<u>Calcium</u>		150 mg/dl	160 110	12.Oct.18
<u>Carbon dioxide</u>		<u>35 mg/dl</u>	50 30	12.Oct.18



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notes from 2015 - 2017

The user taps a row, which expands to show all data points within the selected time frame. Each date is accompanied by a the sparkline with a shifted data point.

Summary

Timeline

Medication

Allergies

Treatment Options










Social

Disease status

Labs Ductal carcinoma of the breast

Labs (84)

sparkline 6 months

<u>Hemoglobin</u>		<u>15%</u>	19 10	12.Oct.18
<u>WBC count</u>		<u>6.74 10⁹/L</u>	8.12 1.86	12.Oct.18
<u>Blood urea nitrogen</u>		<u>120 mg/dl</u>	200 90	12.Oct.18
		100 mg/dl		11.Jul.18
		120 mg/dl		4.May.18
		200 mg/dl		15.Apr.18
		90 mg/dl		5.Mar.18
<u>Calcium</u>		<u>150 mg/dl</u>	160 110	12.Oct.18
<u>Carbon dioxide</u>		<u>35 mg/dl</u>	50 30	12.Oct.18

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Labs Ductal carcinoma of the breast


Labs (84)

sparkline 6 months ▼

Blood urea nitrogen

120 mg/dl

12.Oct.18



150
112

Calcium

150 mg/dl

12.Oct.18




160
110

Carbon dioxide

35 mg/dl

12.Oct.18




50
30


WBC count

6.74 10⁹/L

12.Oct.18




6.84
3.12




4.74 10⁹/L

4.Oct.18




5.74 10⁹/L

22.Aug.18



6.84 10⁹/L

12.Jun.18




3.12 10⁹/L

2.Mar.18

Hemoglobin

15%

12.Oct.18



19
10

Delete note

1 incomplete

3 Placeholder

Sign note

The user taps a row which expands to show a single large chart and a table of all historical values. The table is accompanied by a paginator.

Summary

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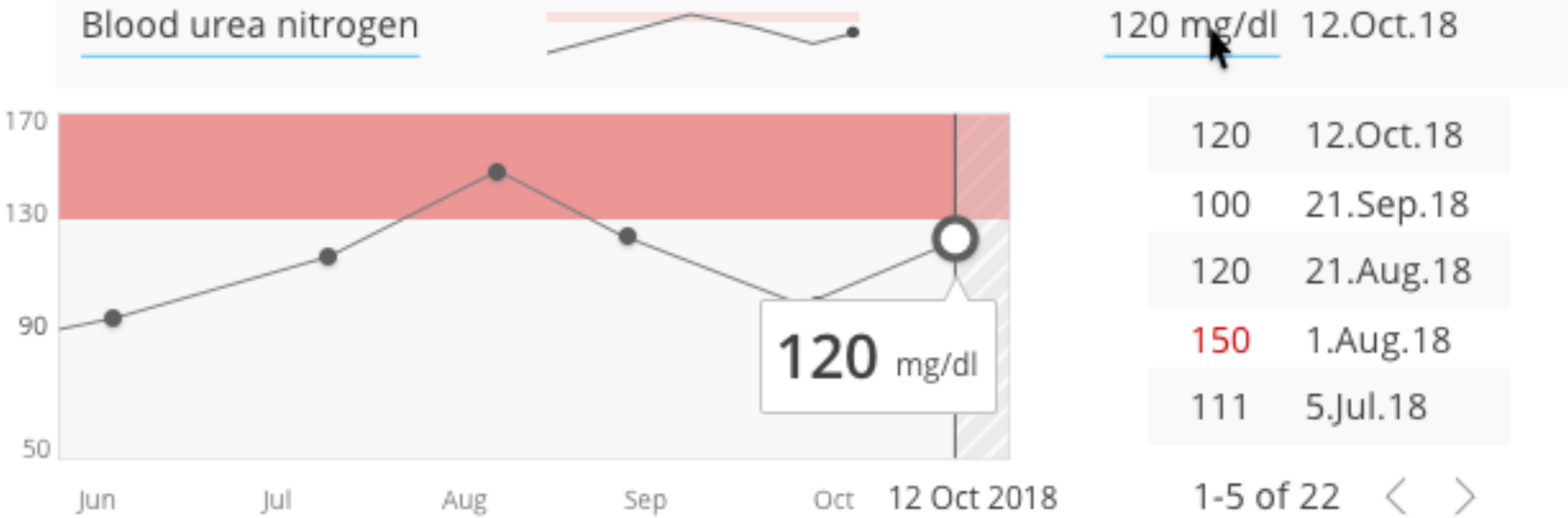
Treatment Options

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Disease status

Labs Ductal carcinoma of the breast

Labs (84)
sparkline 6 months



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Labs Ductal carcinoma of the breast

Labs (84)

sparkline 6 months ▼

Blood urea nitrogen 120 mg/dl 12.Oct.18



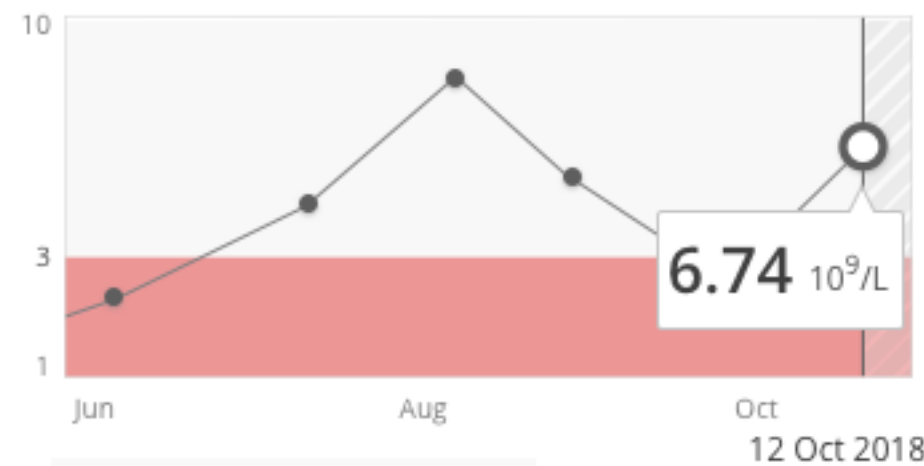
Calcium 150 mg/dl 12.Oct.18



Carbon dioxide 35 mg/dl 12.Oct.18



WBC count 6.74 10⁹/L 12.Oct.18



6.74 12.Oct.18

4.14 21.Sep.18

5.74 21.Aug.18

7.84 1.Aug.18

Delete note

1 incomplete

3 Placeholder

Sign note