## MITRE / FLUX NOTES TREATMENT OPTIONS v7

EDWIN CHOI, DANIEL REEVES, JUHAN SONIN, 9.JAN.2018



# O Clickable prototype

F

#### Full version:

https://www.figma.com/proto/H95uNzkCJvMu0ZbKPafOsAF7/treatment\_options?node-id=22%3A14148&viewport=305%2C-1651%2C0.5&scaling=min-zoom

## MVP:

https://www.figma.com/proto/H95uNzkCJvMu0ZbKPafOsAF7/treatment\_options?node-id=22%3AI 0126&viewport=961%2C643%2C0.5&scaling=min-zoom

## COLLABORATIVE VIEW

Future version

Multiple viz styles

Display descriptions and additional resources



Date of birth Admin. sex 5 Apr 1966 (51) Female

Location Boston, MA ROID 12345432312

Language Spanish Condition

Ductal carcinoma of the breast

Q Debrag24 search... Cli







#### Compare these treatments select treatments

surgery alone

+ homonal therapy

+ chemotherapy

+ hormonal therapy & chemotherapy

1-2 line description w/ reference to external resource

Using these outcomes select outcomes

overall survival rate

reported severe side effects

description of overall survival rate

description of this other metric

H table = text





1 yr

2 yr 5 yr

Of every 100 patients...

overall survival:

reporting severe side effects: most common / biggest change ▼

all...

**surgery** (11 patients)

67 survive after 1 yr

**15** report severe **pain** 

12 report severe peripheral motor neuropathy

combined with:

hormonal therapy & chemotherapy (64) 12 more survive

5 more report severe pain (19/100)
4 more report severe nausea (13/100)

hormonal therapy (76)

6 more survive

+ 3 more report severe peripheral motor neuropathy (15/100) 2 more report severe pain (17/100)

chemotherapy (12)

8 more survive

4 more report severe nausea (13/100) 2 more report severe pain (17/100)



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+ homonal therapy 1-2 line description w/ reference to external resource

+ **chemotherapy** 1-2 line description w/ reference to external resource

+ hormonal therapy & chemotherapy 1-2 line description w/ reference to external resource

Using these outcomes select outcomes

overall survival rate description of overall survival rate

reported severe side effects description of this other metric



Of every 100 patients... overall survival: reporting severe side effects:

nausea

reporting severe side effects:

nausea

**surgery** (11 patients)

67 survive after 1 yr 9 report severe nausea

#### combined with:

hormonal therapy (76)

+ 6 more survive

+ 0 more report severe nausea

chemotherapy (12) + 8 more survive + 4 more report severe nausea



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+ chemotherapy

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+ hormonal therapy & chemotherapy

1-2 line description w/ reference to external resource

Using these outcomes select outcomes

overall survival rate

description of overall survival rate description of this other metric

reported severe side effects

table











2 yr 5 yr

With surgery alone, 68% of patients will survive 1 year, with 30% dying due to cancer. 10% are hospitalized due to side effects, most commonly due to pain.

With **chemotherapy** in addition to surgery, **5% additional** patients will survive 1 year. **2% more** are hospitalized due to side effects, most commonly due to **neuropathy**.

With **chemotherapy & radiation** in addition to surgery, **12% additional** patients will survive 1 year. **4% more** are hospitalized due to side effects, most commonly due to **blood clots**.





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Using these outcomes select outcomes

overall survival rate reported severe side effects description of overall survival rate description of this other metric









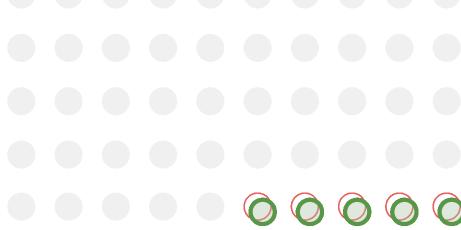




2 yr

5 yr

55/100 survive with surgery only



+5 survive with chemotherapy

+3 survive with radiation

+7 survive with radiation and chemotherapy

40/100 die from cancer with surgery only



5/100 die from causes



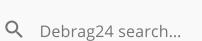


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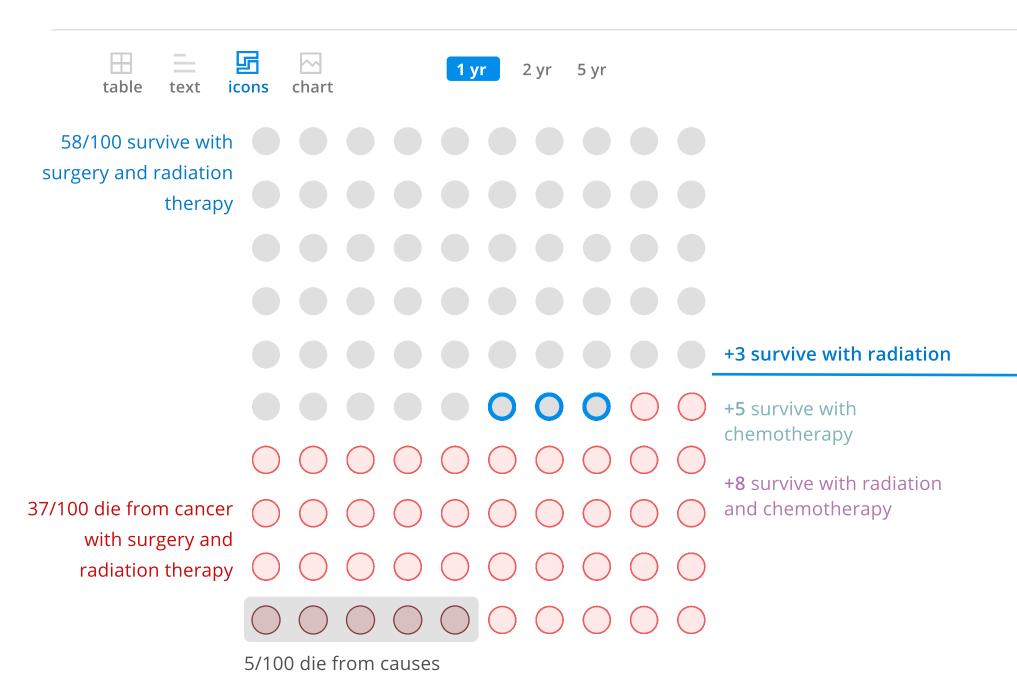
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Using these outcomes select outcomes

overall survival rate reported severe side effects

description of overall survival rate description of this other metric



16 of 100 patients are hospitalized due to side effects of radiation & chemotherapy

neuropathy
pain
blood clots
other causes



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text

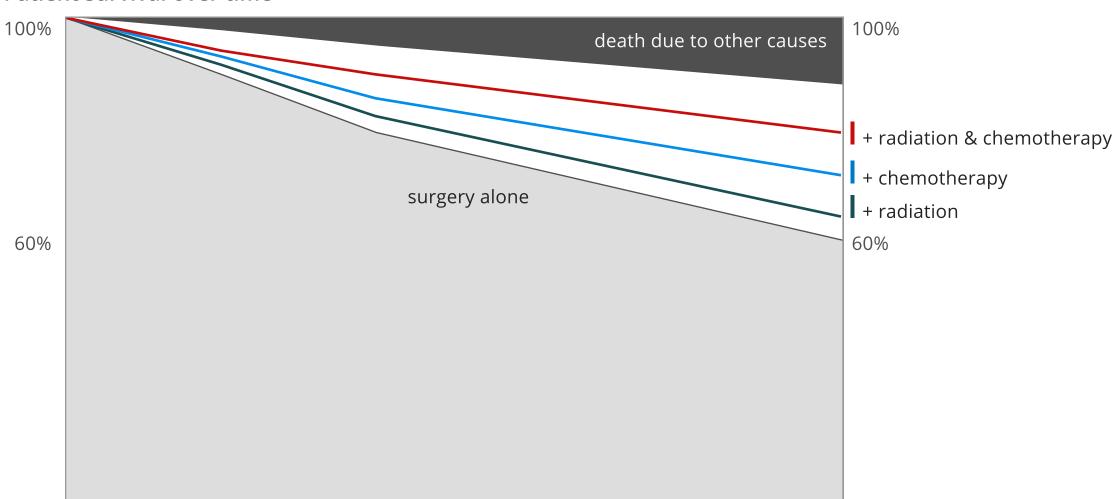






5 yr

#### Patient survival over time



# 2 PRINTING

priority to support printing





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## Summary

Using the following data, we create a cohort of 1,245 patients like you.

Then, we compare outcomes across the different treatments they received.

invasive ductal carcinoma of the breast condition:

demographic	
age at diagnosis	50-60
sex	male
race	white
genetics	
BRCA1	negative
BRCA2	negative

## pathology

grade	3
stage	IIIA
size	10-20 mm
ER	negative
PR	positive
HER2	positive

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## Using these outcomes

overall survival rate hospitalization due to side effects description of overall survival rate description of this other metric

#### **Additional Resources:**

- curated resources that may be condition specific
- curated resources that may be condition specific curated resources that may be condition specific

print these visualizations:











5 yr

Of every 100 patients...

overall survival:

number reporting severe effects:

**surgery** (11 patients)

••••••• 67 survive after 1 yr

dyspnaea anemia •••••• peripheral motor neuro. other side effect

blood clots pain

## combined with:

hormonal therapy & chemotherapy (64)

12 more survive

dyspnaea

anemia

blood clots pain

hormonal therapy (76)

6 more survive

dyspnaea

000 pain

chemotherapy (12)

pain

anemia

blood clots

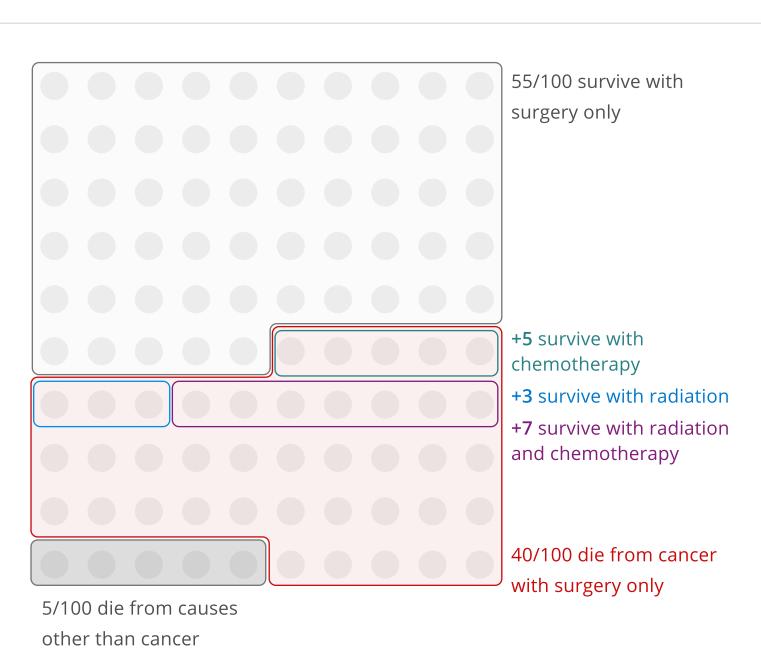
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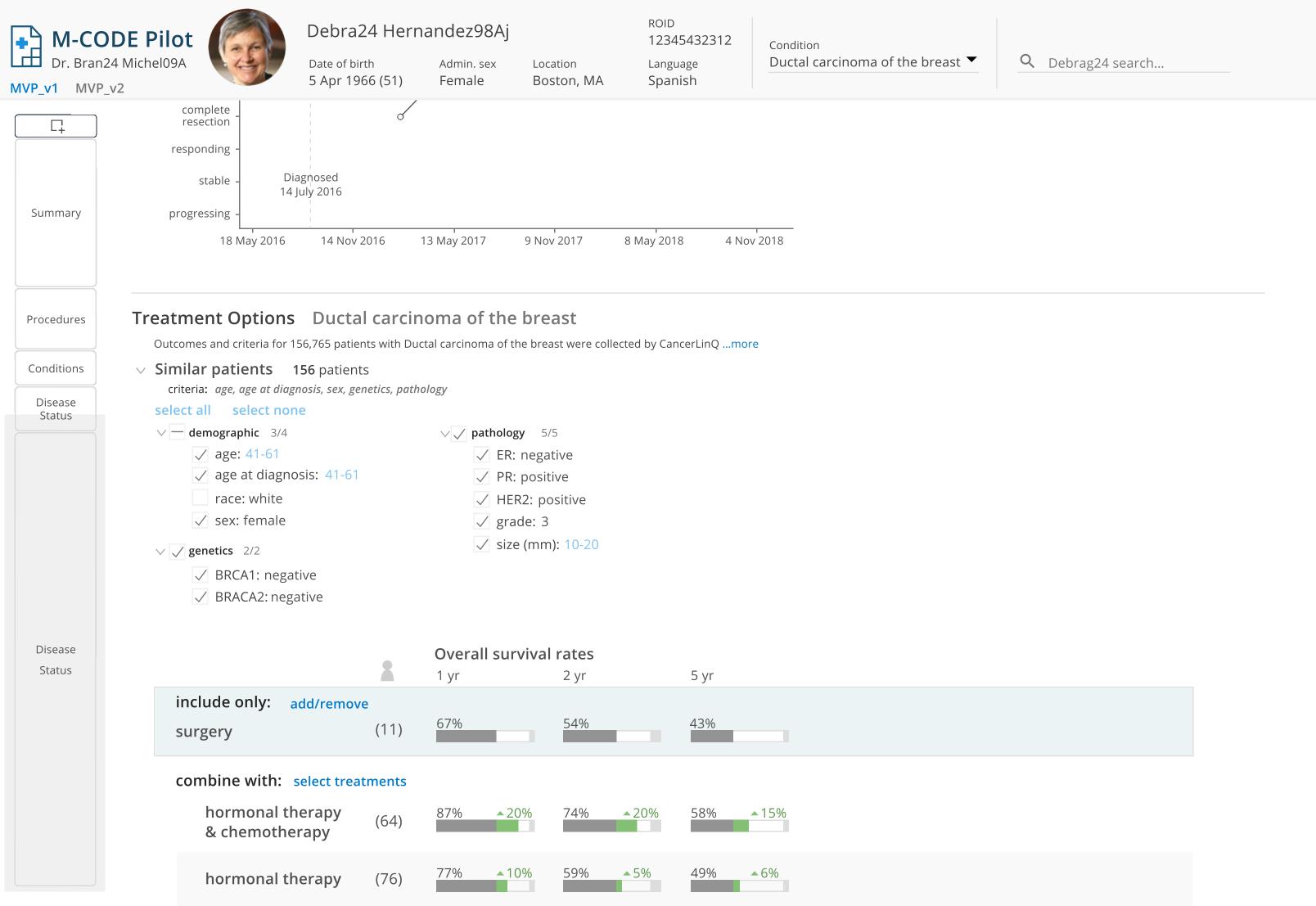
## 3 MVP

Primarily Clinician use

Push to include icon based graphic

Support for side effect data uncertain

Potential to include non-personalized side-effect information



4 Other explorations



 $\blacksquare$ 



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2 yr 5 yr

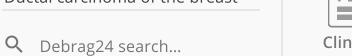
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overall survival rate reported severe side effects

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