



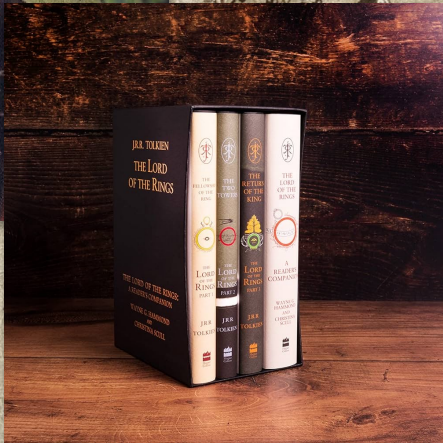
CHOOSE YOUR OWN ADVENTURE

A Data Story

Jiwan Heo

Let's say you're selling your old collection of LOTR books to your friend who doesn't know about the series.

You're trying to pitch to them why it's a fun series, and more importantly, why they should pay you



Middle Earth

Why is this bad?

You're asking your friend to do **a LOT**.

Familiarizing themselves with new content, and **making decision takes time and effort**.

Chances are your friend won't fully understand why LOTR is fun, and won't buy your books.

Good Strategy

Create a **graphical hierarchy**

showing the most important parts
first, revealing details as the reader
continues their journey.

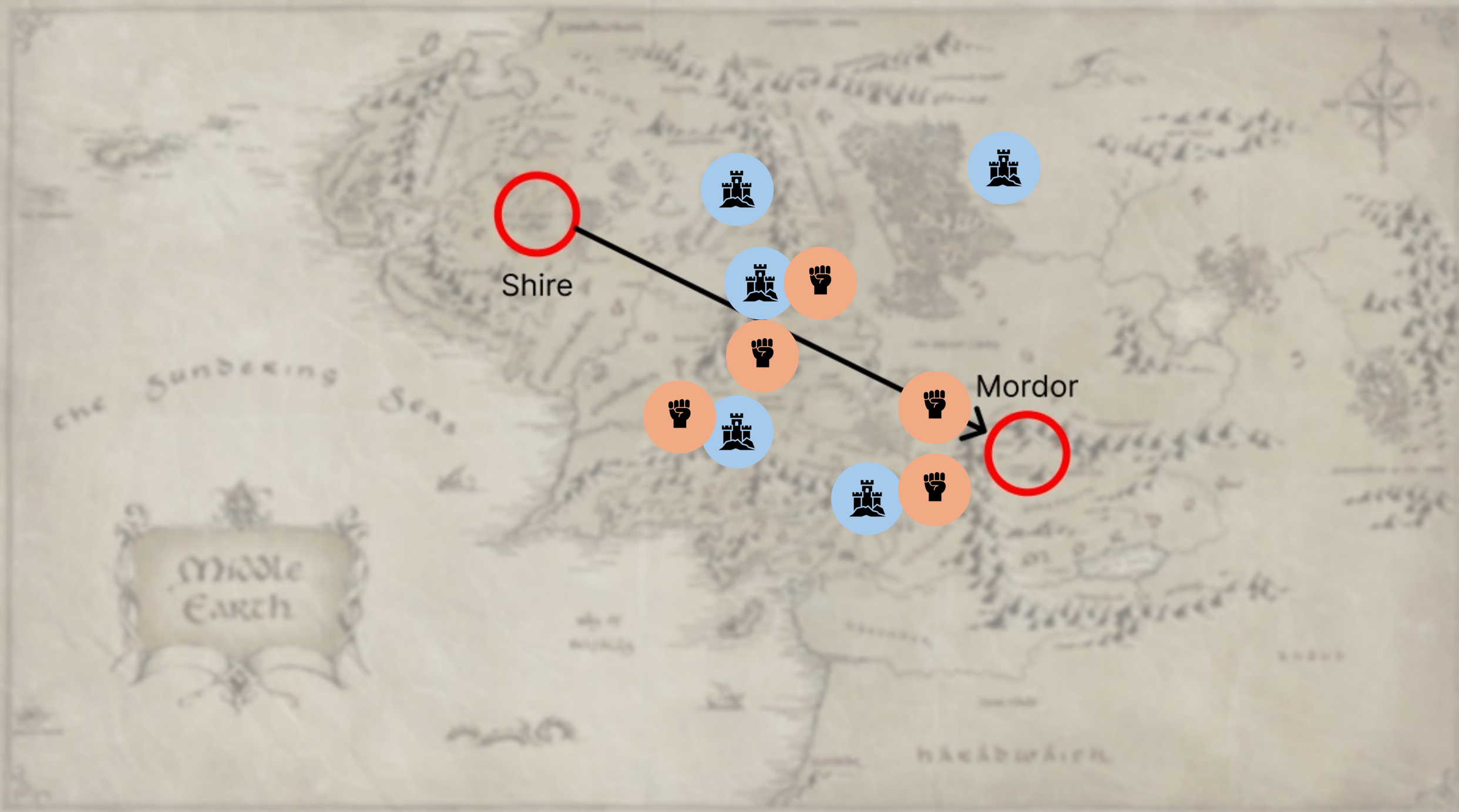
Ask yourself, what does the reader **NEED** to know versus
what they **WANT** to know



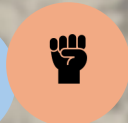
Shire



Mordor



Shire



Mordor



Middle Earth



Bay of Belfalas

haradwaith

khând

harondor

near harad

ichilien

gorgoroth

nekn

mountains of shadow

ash mountains

mount doon

band-dur

dagorlad

the brown lands

twold

east emnet

west emnet

dunland

minhiriach

enedwaith

havelond

forlindon

the shire

blue mountains

forochel

forodwaith

northern coast

hunting

col foun

col morion

oreneleakona

Why this Works

Visual Information Seeking Mantra -Ben Shneiderman



Overview First



Zoom and Filter



Details on Demand

Medical Monitoring at Sarepta

The team monitors **patient safety**
while on study drugs

They read lab values to see if
everything is normal

When something doesn't look
right, **they must take actions**

Alerts

While patient is in the study, various lab results are analyzed

If certain value is considered **abnormal** an alert is raised.

Depending on how **severe** this alert is, MMs take actions

Our First Attempt:

The Entire Middle Earth Approach



Overview First

What is the most important thing for users?

Ask for **a walk-through of their day-to-day**, ask pain points

Present a theory of what you think is important.

They'll quickly deny if not true



Overview First

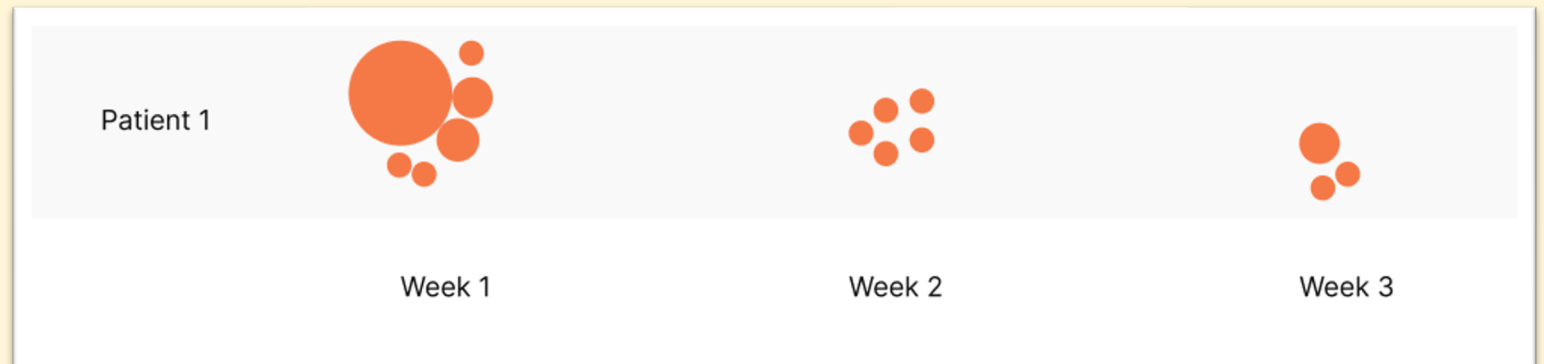
Chart Hierarchy



For Sarepta:

Alert events that need intervention/action are **very important**

Now that we know what's important. Make it prominent!

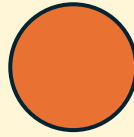


Overview First

Color Mappings



Category 1



Category 2



Category 3



Category 4



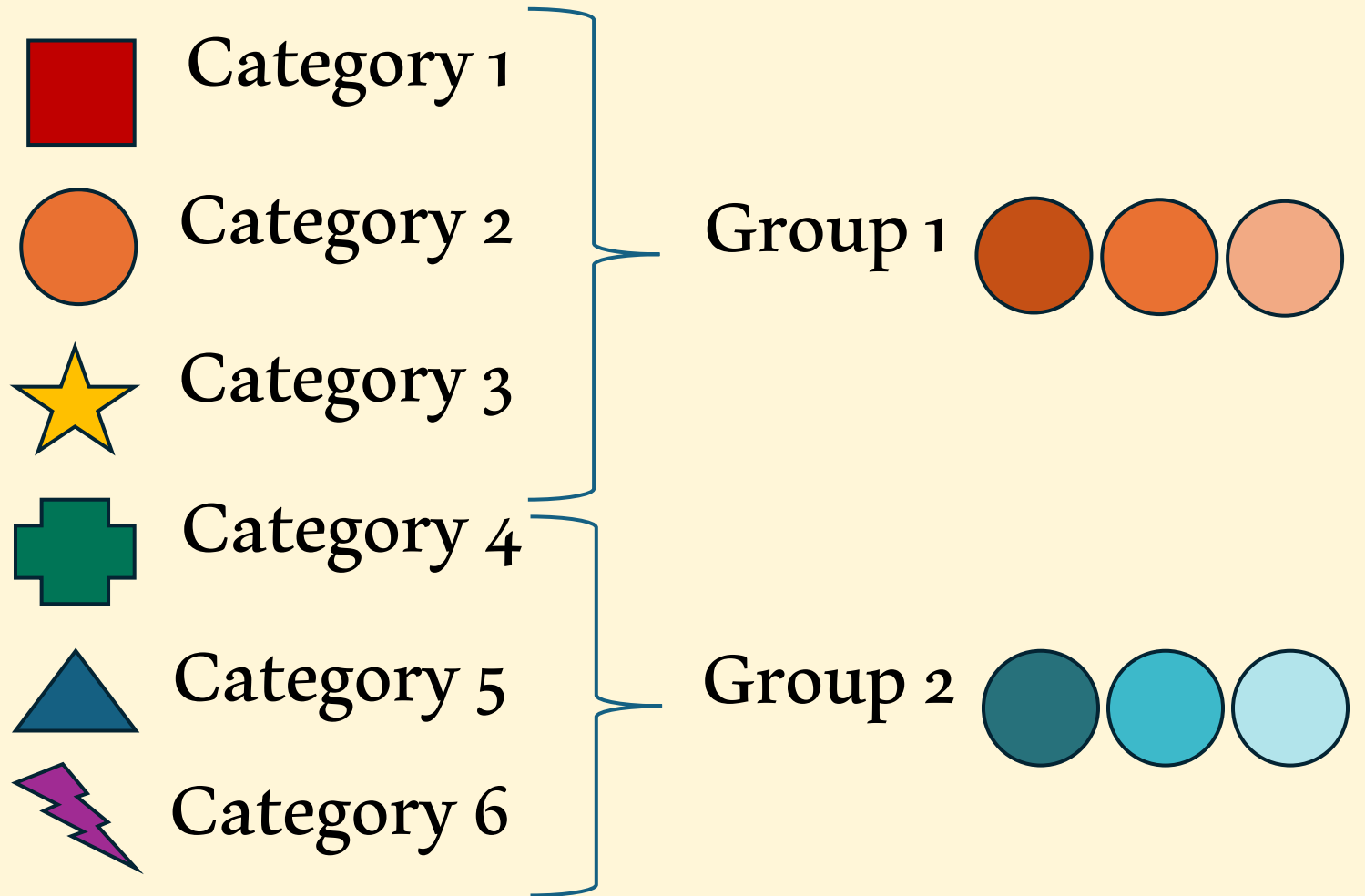
Category 5



Category 6

Overview First

Color Mappings



Overview

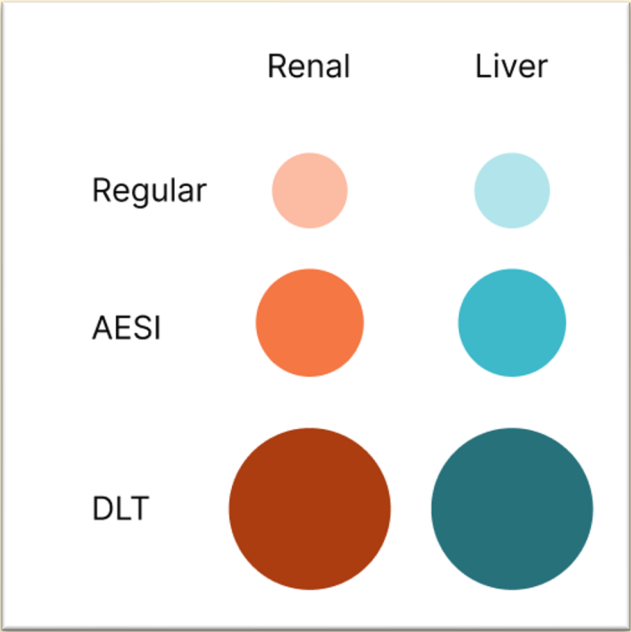
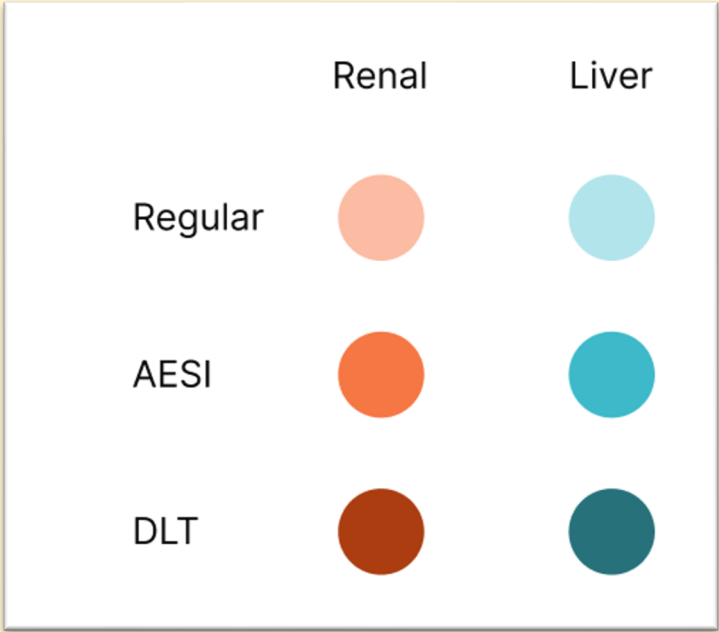
First

Color Mappings

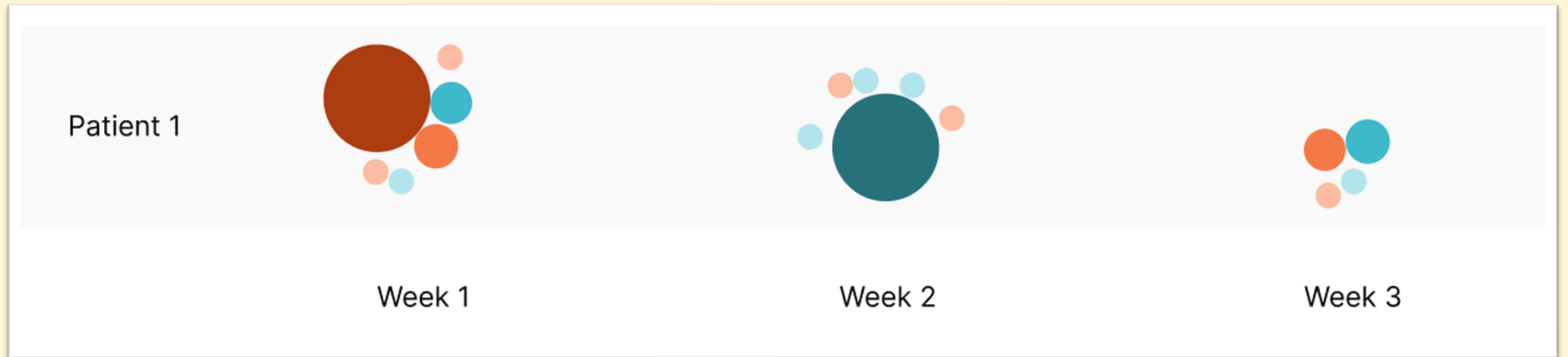
Before



After



Putting it Together



The eye is **immediately drawn** to the most “**alerty**” events

We’ve gone from **6 colors** to **2 gradients**

Zoom and Filter

How do users slice/dice data to answer specific questions?

What kind of questions they ask themselves during their day-to-day

“Today, I need to look at all patients in site A”

“I don’t care about regular events, who had a DLT?”



Zoom and Filter

Site Treatment Epoch Timing by Alert Category Alert Level

Multiple Selected visit day Multiple Selected • Abnormal Result • AESI • DLT

Additional Controls -

Patients Lab Parameter

Multiple Selected

Important to place filters **close** enough to the visuals, so that it's clear what the effects are!!

Details on Demand

After user knows what event to look for, they want more details

“What was the reading?”

“When did this happen?”

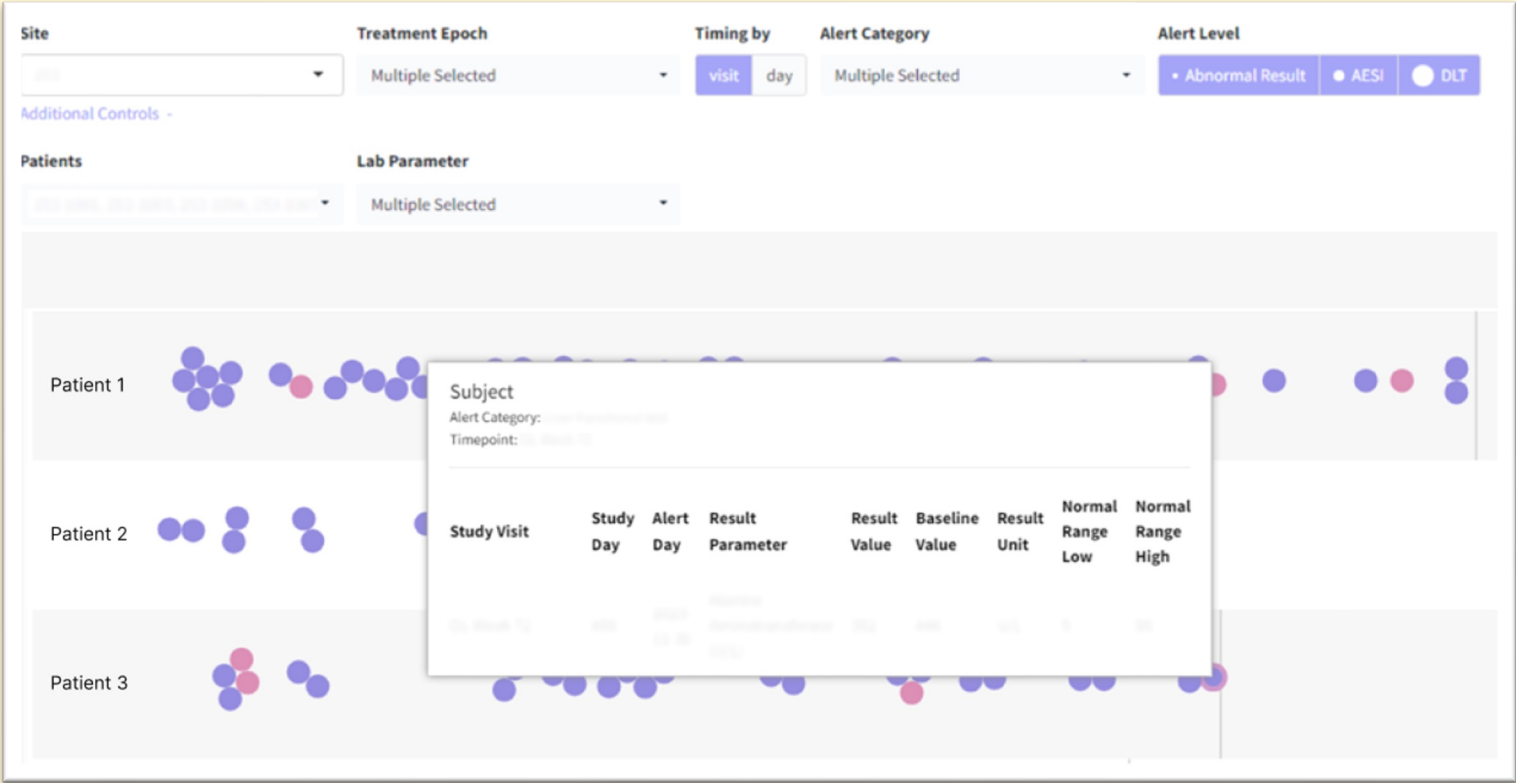
“Was there an AE?”

“What kind of medications are they taking?”

The key is they don't need these from the start



Details on Demand: Tooltip



Details on Demand:

Listings



Navigation: Data, Subjects, AF, Disposition, Profile

View: Listing | Table | Plots

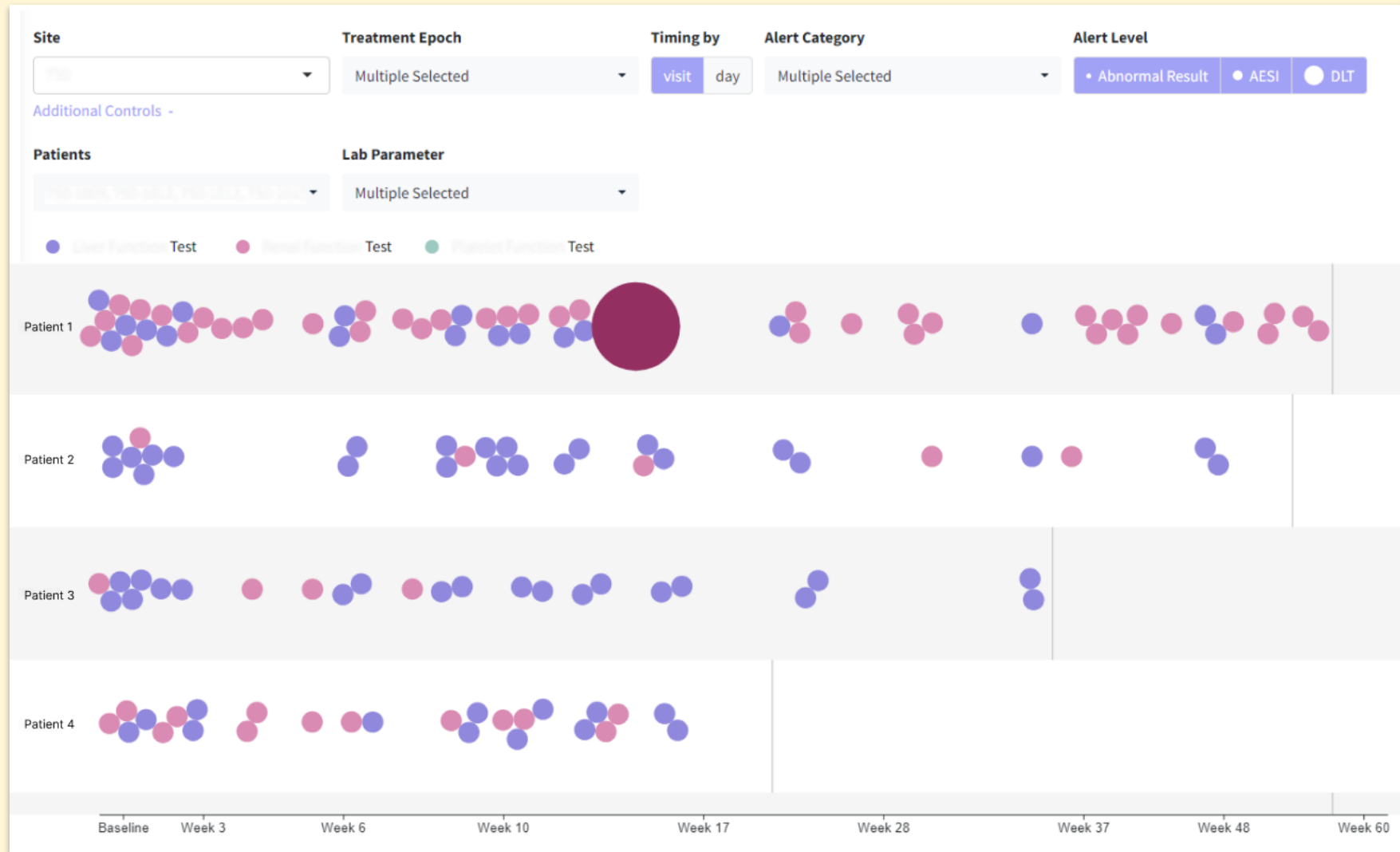
Download CSV

Show 10 entries

Search:

Treatment	Subject ID	Intent-to-Treat Population	Safety Population	Date/Time of First Study Treatment	Date/Time of Last Study Treatment	End of Study Status	Completion or Discontinuation Date
All	All	All	All	All	All	All	All
Drug A	002	Y	Y	2018-06-09T09:06:38Z	2018-07-16T13:12:35Z	Completed	2018-07-21
Drug A	020	Y	Y	2018-05-22T06:20:39Z	2018-05-22T08:28:39Z	Discontinued	2018-05-28
Drug A	023	Y	Y	2018-07-03T15:08:25Z	2018-08-05T11:33:40Z	Completed	2018-08-13
Drug A	026	Y	Y	2018-06-25T13:59:40Z	2018-07-26T13:29:01Z	Completed	2018-08-05

End Result



Common Tips: Sketches

Middle
Earth



Sketches

At the beginning, when trying to understand users, showing them something visual is critical

But don't spend too much time coding this, because you'll get attached to the hours spent

Sketches

Figma

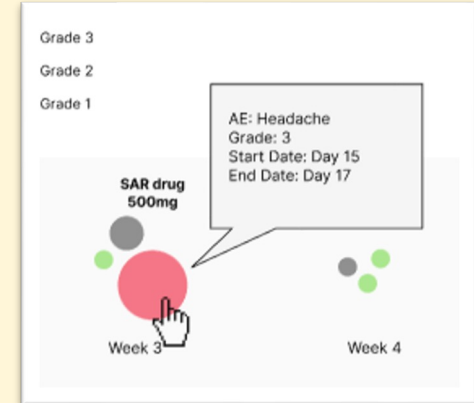
Frame 1

Overall Display

The purpose of this display is for Medical Monitoring to "pick out" subjects of interest to investigate further. To do this, they scan through AEs.

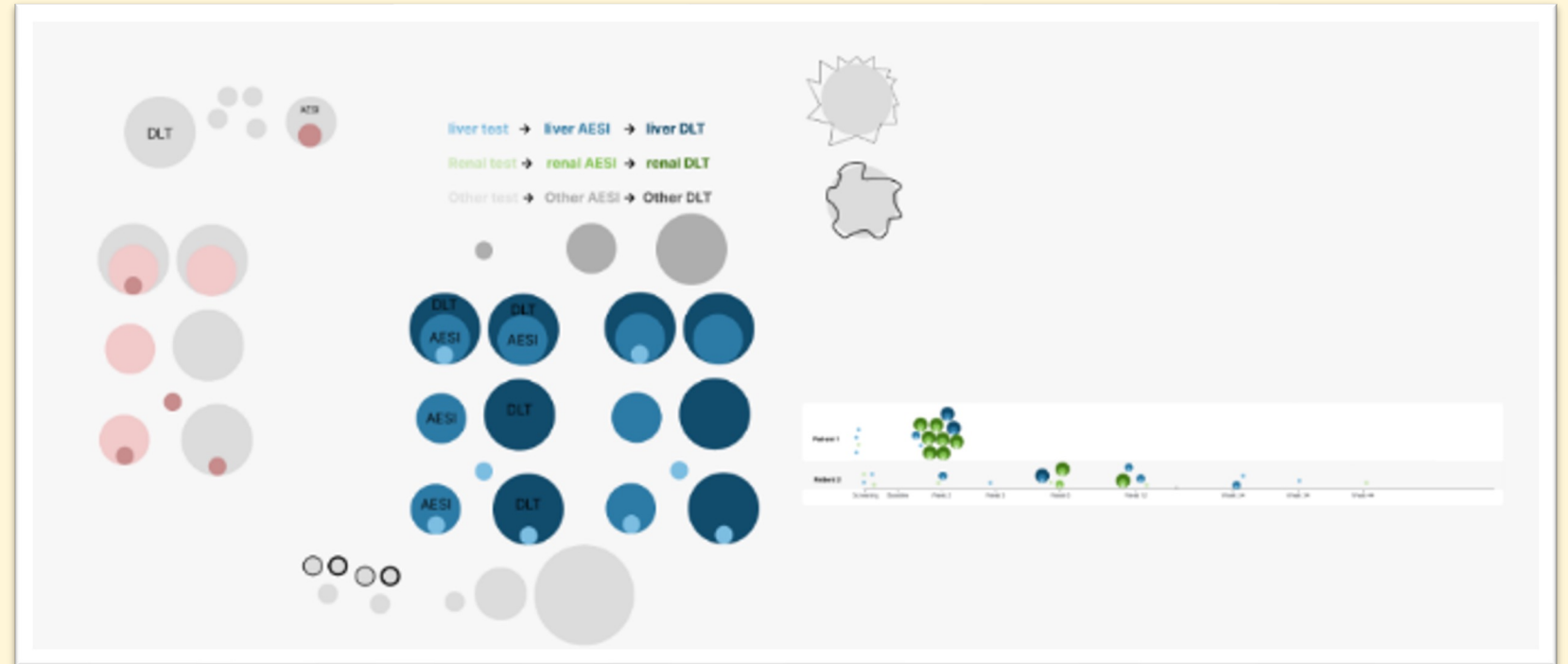
If they don't care so much about the duration of AEs, so much as when AEs start happening (onset), bubble chart is excellent

They can answer questions such as "Who has the most AEs?" "Who has the most serious AEs?" "Does it keep happening?"



Sketches

Figma



Conclusion

Don't start with Middle Earth!

Show your user exactly what they need to see [overview] and then you can let them interact [zoom and filter] and explore their universe of data [details on demand]



Thank You

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