Oncohub: User Experience Considerations in Focus

By Nick Zedlar, Senior UX Designer December, 2021

What features or data do physicians need?

In addition to the standard test results and clinical trial information, Oncohub offers expanded functionality in its **Calculators & Resources** and **Antibiograms** sections, as depicted here:









Antibiograms

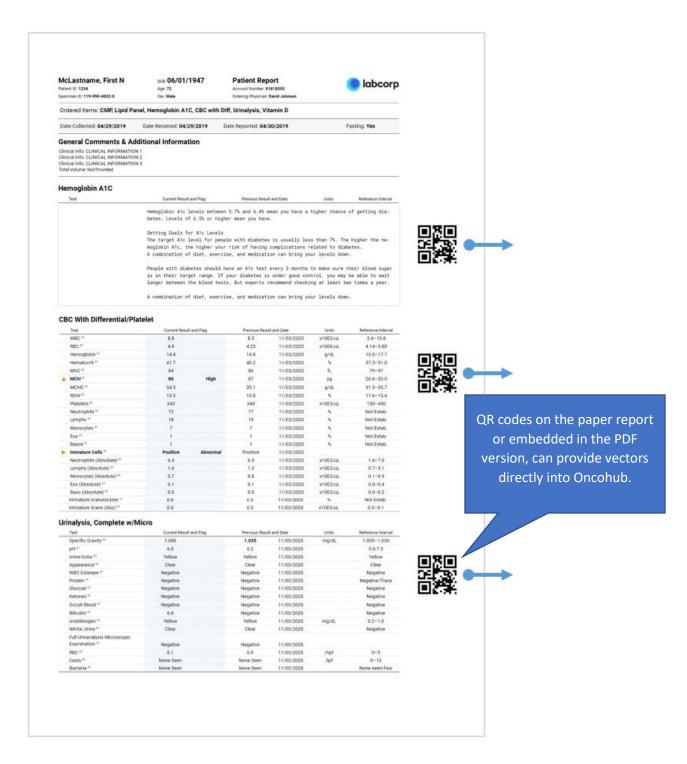
It should be noted, however, that initial findings from the first round of participants in the UserZoom usability questionnaire don't seem to attribute much utility to the antibiograms section. Follow up to determine if this is indeed the case.

How is the proposed Oncohub presentation of test data different than the enhanced report?

There are many differences, mainly because Oncohub is not limited to the constraints of a static, physical (paper) medium. That said, Oncohub is modeled after the enhanced report format.

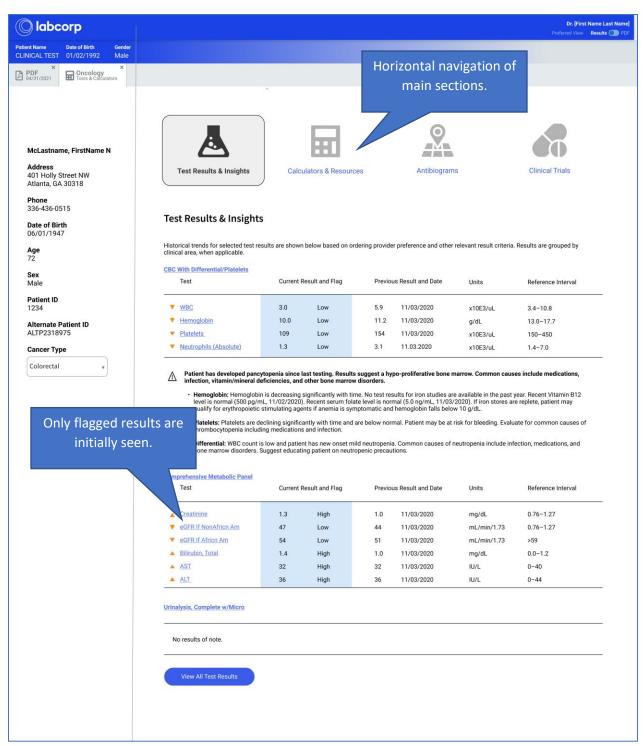
Most obviously, data is (near) real-time, more expansive and richer, and the user experience is *customizable*—that is, an individual's persistent or session preferences are configurable—in addition to being *personalizable*—that is, the user's organization, administrators or LabCorp liaison/proxy can select certain individual, group or global settings, as they see fit.

Whereas improved proposed integration with the enhanced report can take place with the use of QR codes or similar solutions to at least partially bridge the paper-digital divide (as shown below), there's no substitute for true interactivity, up-to-date data, and the pure depth of the online experience. See Best Practice #2 of 3 UX Best Practices for Medical Product Designers.

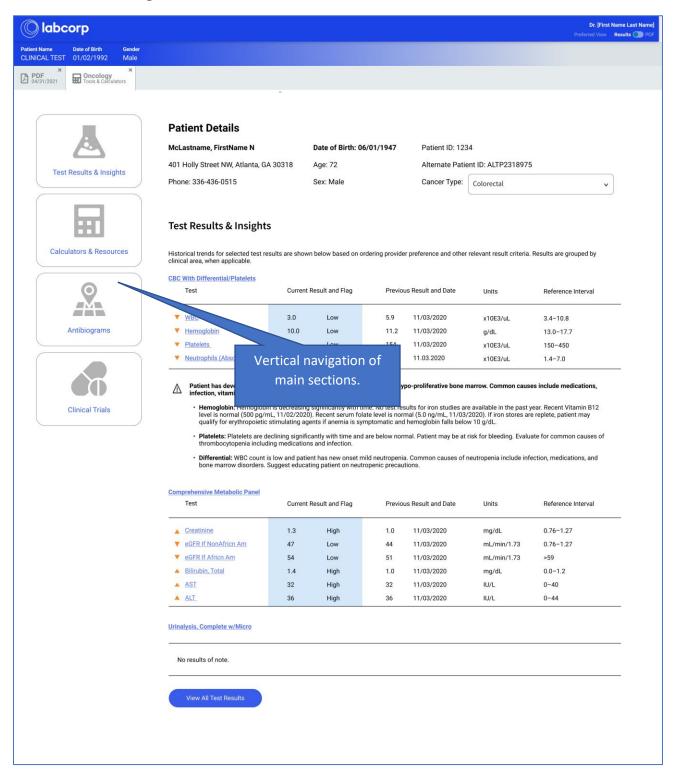


Oncohub is more focused for quick assimilation. For emphasis, only flagged results are initially shown. Increasingly, it appears that the initial view should be in graphical, rather than in tabular, format, but this is yet to be definitively determined. See A Guide to Healthcare UI/UX: Best Practices with Examples.

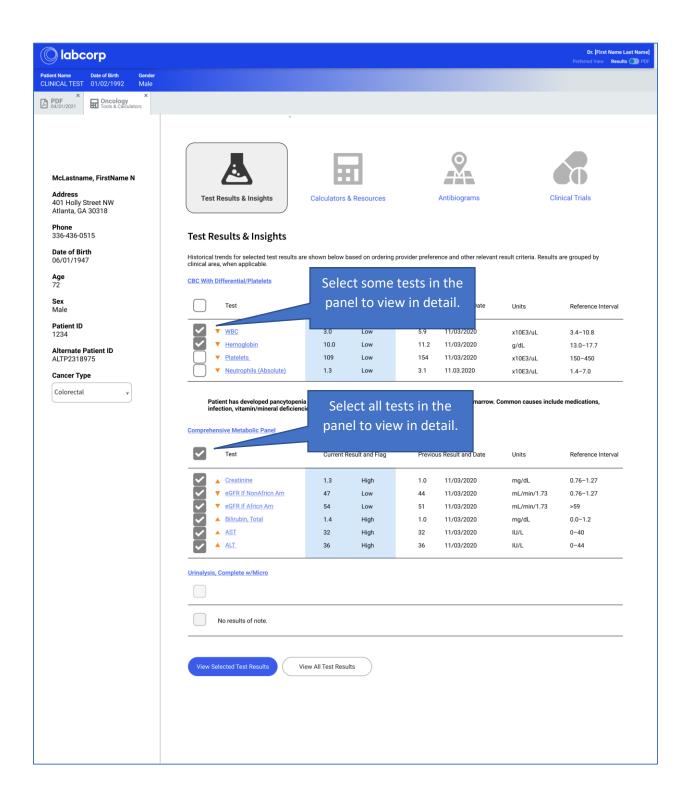
At any point, however, the user—whether physician or patient—can choose to see the alternate or complete report view via clearly delineated hyperlinks. It's entirely up to the user and the standards dictated by their organization and regulatory bodies.



For instance, navigation schemes can be horizontal or vertical in nature.



Alternatively, the design could allow for multi-select drill-down capability. The user could choose to see any or all test results in their entirety via checkboxes, while retaining the individual drill-down via hyperlinked test names.



Oncohub Al-enhanced algorithms can recommend not only diagnostic and treatment options, but also other tests that are typically ordered under similar circumstances. Of course, the ideal solution is to inform and also provide a remedy in the form of order capability. Once again, this can take the form of a single- or multiple-selection model:



What are some important UX recommendations?

- First impressions matter. Make a good one. Since users make judgements within seconds of seeing a user interface, make smart decisions about typography, color, imagery, layout and other UX concerns that provide a clean, consistent and pleasing experience that instills trust, reinforces the company's credibility, provides clear benefits and contributes to user satisfaction and retention. See <u>User Interface Design Best Practices for Medical and Healthcare Apps</u>.
- Oncohub must be accessible to all. There needs to be a concerted effort to make the interface usable by both abled and disabled users. See <u>Why</u> <u>Healthcare Has Historically Poor UX/UI (And How to Fix It)</u>.
- 3. A high degree of customizability is essential. It must be built into the interface to allow users to configure what data they see and in what format, with the ability to switch between any number of views at will. This can include not only data presentation, but also the order, layout and appearance of interface elements themselves on the fly.
- 4. There should be separate doctor- and patient-centric views, such that data types and presentation, vocabulary and tone, associated resources and tools, etc. are all appropriate for the intended audience.
- 5. The experience should accommodate all user types. Related to the previous point, a healthcare product best practice is to consider all user experience levels: first-time, novice, infrequent, power and peripheral. This means designing help and guidance systems appropriate for all. See Best Practice #1 of 3 UX Best Practices for Medical Product Designers.
- 6. **No available information should ever be off-limits.** Links to full reports, optional views, related information and tools, recommendations and suggestions, and additional resources should be readily available and obvious in the UI.
- 7. The experience is interactive, not just a passive data display. Users can take action, not just consume information. Provide the remedy! For example, physicians can order tests; investigate insights, recommendations and suggestions; research trials and insights; and use a wide array of integrated tools. This is a huge value-add for Oncohub, as it will be seen as

- a place to advance the workflow while reducing errors and overhead, rather than a deviation from it.
- 8. **Integrated functionality is key.** Related to the previous point, Oncohub requires integration with as many relevant systems as possible to provide up-to-the-minute information, current tools and capabilities, the most recent trial and treatment options, and the means for accessing the full family of LabCorp, partner and third-party vendor services.
- 9. Less is more... for the initial view. Allow users to drill down as they wish for more detailed or nuanced information, but maintain a lean surface presentation to keep cognitive load minimal. Provide the depth, but ensure that users don't feel like they will drown by taking a step in any direction! Relegate extra patient, lab or other information that's not directly germane to supplementary sections equivalent to the page or document footers in the static document. Resist the temptation to include every feature or data point under the sun. Maintain focus. See #1 of Best Practices for Medical App Development Go Beyond Standard UX.
- 10. Continue research to stay user-centric. Improvement is a perpetual process, so learning about user needs and learning ways to make the experience better over time is a constant endeavor. Keep asking questions and evolving the product. See Best Practice #3 of 3 UX Best Practices for Medical Product Designers.

Who are the key players with whom to network?

As of this writing, the Oncohub project does not have an attached oncological specialist as a subject matter expert. This fact has effectively stalled the UX design process, since validation of the clinical workflow, essential fields, preferred tools and related issues has not been forthcoming.

Nevertheless, for the sake of documenting contributors thus far, here participants in the first design phase:

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