Next-level Clinical Trial Technology Can Avoid Dropouts and Accelerate Drug Development

Despite the recent shift to hybrid and decentralised clinical trials (DCT), low enrolment, poor retention, and outdated processes are still holding research back. But it's not the technology that's the problem – it is the way we are using it.

From ride hailing to mobile banking, technology is light years ahead of what it was just a few years ago. Yet many solutions in the clinical sphere have not kept pace with the level of choice, control, and user experience people have come to expect. It all adds up to a clear disparity between the experience in clinical trials and the daily experience of the average consumer.

Recruitment, Retention, Inclusion
Translating discoveries into products has remained a stubborn challenge, with clinical trials facing several well-documented bottlenecks.

Chief among them is recruitment, a process that can take up to 30% of development timelines, and commonly delays study start by between one and six months.[1] That comes as no surprise when we consider that 11% of clinical research sites fail to enroll a single participant, and 37% under-enroll.[1]

Even when a study has enough participants to proceed, up to 40% go on to drop out before the completion date,[2] draining study power and putting the entire project at risk.

There is also a very real need to widen inclusion and increase representation in clinical research. Black/African Americans, who make up more than 13% of the US population, account for just 7% of clinical trial participants, for example.[3]

Compounding all these well-established challenges is that the advent of precision medicine has shrunk the pool of eligible participants, sometimes to those with a single genetic mutation.

Technology-enabled Research
DCTs and hybrid trials, which allow sponsors to cast a wider geographical net and reduce burden on participants, have emerged as a solution to many research challenges.

Key to unlocking the benefits of DCTs is making it as easy as possible for people to sign up to, and stick with, a clinical trial. After all, improving recruitment is worthless if sponsors are unable to ensure trial cohorts are more representative at the outset, or if swathes of data are lost to subsequent dropouts.

We can take our cue here from the consumer sector, which would never dream of asking users to jump through the hoops some clinical trial technology platforms put up.

Currently, for example, trial participants have to interact with a multitude of solutions or platforms, each with a different log-in system and interfaces. It is burdensome and far from convenient.

Many payment and reimbursement systems charge fees, provide a limited choice of payment methods, and block participants from raising their own payment requests. In a world where people are used to instant, easy to use mobile banking, such restrictions create barriers to trial registration and continuation.

Even within the DCT model, people will usually need to visit a site at some point. Yet many sponsors ask their participants to pay the fare and claim the money back, without considering whether the cost could be prohibitive. In addition, they may place the onus for organising travel on their already busy research sites.

It is also worth considering that DCTs have the potential to erode the participant/ site relationship. If effective communication is not enabled, patients may feel isolated, and sites can miss drop-out warning signals.

User Experience
We therefore need to make it as easy as possible for people to take part in clinical trials. That means providing solutions that give
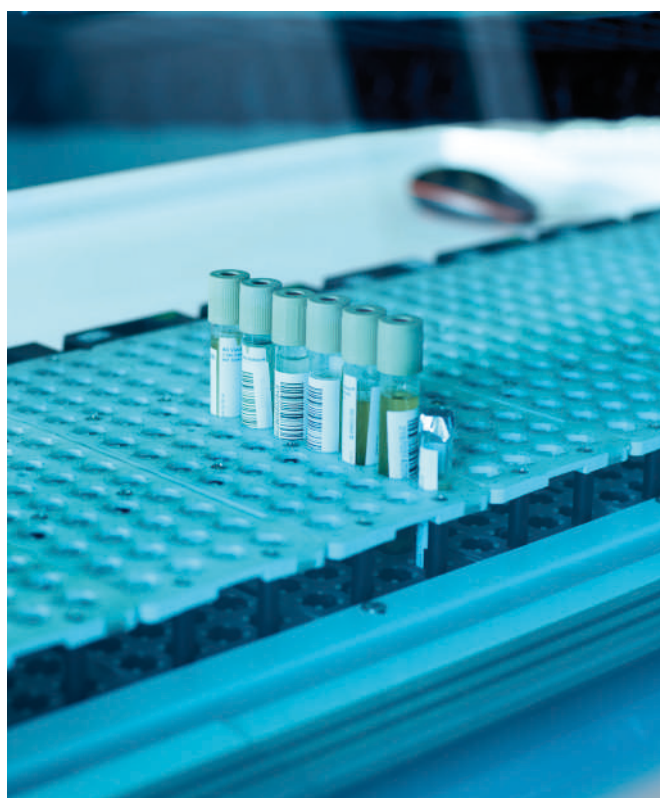
people the same level of control and user experience they have come to expect in their everyday lives.

Combining services into a single platform, for example, provides ease of use and removes the "clunkiness" that can cause people to disengage.

Payment systems should offer the same level of security, control, and oversight that people expect from their bank. They should be able to choose how they get paid, whether that's by PayPal, bank transfer, or even check, raise their own payment requests, and easily track incoming funds. Crucially, they should never incur ATM fees, monthly inactivity fees, or any other extraneous charges.

When people face difficulties in getting to sites, it results in site productivity-draining lateness, or, even worse, no shows and missing data. One solution is enabling centrally charged travel within the patient-facing platform. At Mural, for example, we have partnered with HIPPA-compliant Uber Health. It means that rather than relying on sites to make travel arrangements, participants simply hail a ride to their appointment without incurring any out of pocket costs.

Underpinning all of this is communication. Solutions that provide two-way messaging, in a format people are used to using on their smart phones every day, allow participants to raise queries and concerns. They allow sites to offer reassurance, as well as send appointment reminders and payment notifications.

Integrated systems that focus on meeting patient need can take this one step further. Regular satisfaction surveys, for example, allow sites to spot and respond to the falling engagement that can result in dropouts. They also provide sponsors with the insights they need for the continual improvement of patient-centered processes.

Next Generation trial Technology

Wrap around, consumer-quality patient support solutions are the next logical step in clinical trial evolution.

Combining advanced payment products, a centrally charged travel concierge service, two-way site/patient communication channels, and participant insight collection tools makes it easy for people to take part in research. It allows sponsors to fully embrace the potential of DCTs – and set clinical advancement free.

REFERENCES

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Jason Dong

Jason co-founded Mural Health with the goal of using technology to elevate patient experience in clinical trials. When Jason was an investor in pharma technology businesses at Advent International, he had an off-the-cuff conversation with co-founder Sam Whitaker about what it would look like to modernise the patient experience. That conversation snowballed, and over the course of the next year, Mural Health was founded. Jason is excited to bring his experience and insights in building a world class organisation at Mural Health. Jason grew up in New Zealand and came to the US to attend Harvard. Previously, he was a management consultant at McKinsey & Co.

Sam Whitaker

Mural Health represents a natural evolution to Sam's past work; the Mural Link product leverages a next-generation participant payment technology to drive deeper benefits to the participants and more meaningful value to both sites and sponsors executing the study. Prior to co-founding Mural Health, Sam founded Greenphire in 2008, where he was responsible for inventing the first payment technologies that were vertically integrated into the clinical trials industry. Sam is from suburban Philadelphia (Delco!) and is a graduate of the University of Pennsylvania.