Focal Point

Patient centricity is a growing trend in the pharma industry. From the creation of Chief Patient Officer positions to culture-change initiatives, one of the strategies to improve clinical trial quality is to treat patients as 'consumers', rather than 'subjects'

Bruno Gagnon and Nick Payton at Comprehend

Most efforts to enhance trial processes hope to bridge the gap between the biopharmaceutical sector and individuals living with a disease. To date, clinical operations (ClinOps) have only been a small part of these attempts, but there is huge potential for them to increase the patient centricity of study execution and, in turn, the satisfaction of patients.

There are three primary advantages of taking a patient-centric approach to ClinOps (see Figure 1). First, they can reduce leakage through the enrolment process to increase retention and minimise the pressure on recruiting new subjects. Second, ClinOps are uniquely positioned to manage protocol compliance to avoid costly amendments, and ensure that patients remain in the trial as long as they stand to benefit from it. Finally, with access to real time patient-level data, ClinOps are able to quickly respond to any safety and logistical issues by dedicating additional resources to the studies and sites most in need.

The notion that ClinOps can have a major impact on the patient experience is not particularly new – but access to high-quality, real time and cross-study insights is. The arrival of a new class of software – called clinical intelligence – that aggregates disparate trial data to deliver information on key performance indicators for clinical research teams has been heralded as a significant technological achievement.

Clinical intelligence is the only suite of applications specifically designed for use by multiple members of clinical research teams – from ClinOps and Data Managers to medical monitors and Chief Medical Officers. Armed with these purpose-built systems, clinical teams have access to real time insights from high-quality data to inform their critical decisions and keep studies both on time and within budget. This system further empowers clinical research teams to improve enrolment, protocol compliance and site productivity. But in this case, the focus is on enrolment – in particular, the value of pursuing patient retention as a way to manage it more efficiently. If executed successfully, retention holds powerful implications for completing trials with high levels of patient satisfaction.

Retention Challenge

In clinical development, most enrolment efforts focus on recruitment. Seldom discussed, however, is the other side of the enrolment problem: patient retention.

Recruiting is tough – only 31 out of every 100 eligible and available subjects will make it to the pre-screen qualified stage in the enrolment funnel of a study. But of these 31 patients, only 7 will complete the trial (see Figure 2) (1). It is, therefore, no surprise that 85% of studies fail to retain enough subjects. There are serious consequences of dropouts – from costly delays to missing data that can compromise results.

At the same time, sponsors are struggling to improve the patient experience. A recent survey by Memorial Sloan Kettering suggests that only 40% of US citizens have a positive impression of clinical trials, and only 35% are 'likely' to enrol in one (2). Is there a path to overcoming the retention challenge, while simultaneously enhancing the patient experience?

Three Steps to Retention

When considering best practices in patient retention, let us draw on the experience of one Vice President of ClinOps.

Retention *Reduce leakage*	**Compliance** *Avoid amendments*	**Safety** *Minimise adverse events (AE)*
• Consent rate	• Protocol deviations	• AE rate
• Screen failures	• Data entry rates	• AEs by week
• Randomisation failures	• Subject visits	• AEs versus study baseline
• Withdrawal	• Scheduled visits	

Figure 1: Key metrics for identifying patient issues

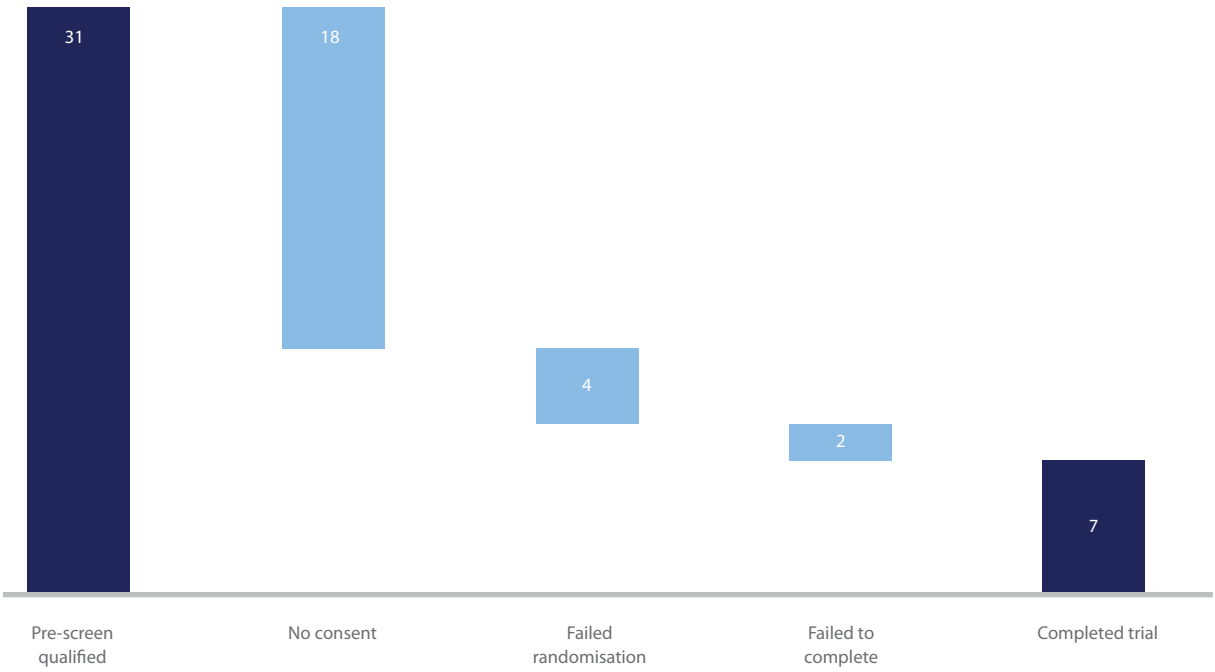

Figure 2: Out of every 31 qualified patients, 7 complete the average trial

At the time, he oversaw 17 studies with a team of five and one CRO at a mid-sized biotechnology company.

Critically, he had invested in clinical intelligence to manage disparate data sources and keep his decentralised team on the same page. Clinical intelligence aggregated data from multiple sources, delivered cross-study insights, enabled one-click, site-specific investigations, and facilitated cross-team collaboration to ensure milestones were reached and trials were kept on time and under budget.

To meet new corporate patient centricity standards, he and his team were paying particular attention to participant retention in their studies. A simple, three-step playbook was created to take this into account and improve the patient experience.

Step 1: Diagnose the Leakage
First, it was recognised that full visibility of each step of the enrolment procedure was needed. Without understanding where patients were falling out of the enrolment funnel, it would be impossible to know how to increase retention.

Clinical intelligence typically involves out-of-the-box key performance indicators, including an enrolment funnel that is used to track progress of patients through each stage. A glance at the dashboard showed that this particular study was experiencing a higher-than-expected withdrawal rate.

Step 2: Investigate the Root Cause
Why were so many patients pulling back from the study? With a single click, it was possible to directly investigate the root cause of withdrawals. Visualisation of withdrawals by type over time proved that most patients were designated 'lost to follow up'. Unlike 'safety' or 'death' designations, 'lost to follow up' is usually a process issue that can be addressed, which left the Vice President optimistic that his team could resolve it.

One additional click revealed the countries most responsible for a high proportion of these designations, and the realisation that Lebanon in particular was experiencing an issue.

Step 3: Close the Loop
A time series of withdrawals in Lebanon showed that there was one recent death and another early safety issue at

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two of the sites. After these incidents, he saw an uptick in patients withdrawing and being designated 'lost to follow up'. Intuitively, it seemed that subjects were failing to follow up due to concern with these early adverse events – but he needed to discuss this with his team. Within clinical intelligence, he assigned a task to his team to confirm the problem and create a plan for proactively educating patients regarding early adverse events.

His intuition proved right, and a proactive education of participants encouraged them to make a more informed decision. As a result, more patients decided to stay in the trial, and the proportion of subjects who withdrew from the study was minimised.

This proactive, data-driven approach to trial management has confirmed that it is possible to reduce the likelihood of missed milestones. Less often discussed, however, is how this approach will also improve the patient experience. By identifying a withdrawal rate issue in real time, this ClinOps team addressed the issue before it led to a trial delay. Through directing resources to these problematic sites, they ensured that

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patients had the information they needed to reach an informed decision about whether or not to participate in the study.

Personal Focus

ClinOps has an important role to play in enhancing the patient experience. With access to accurate and timely insights on key patient-related indicators – powered by clinical intelligence – biopharma professionals can act more quickly to solve problems before they have a broader impact on the trial. This proactive approach to issue management will simultaneously improve the patient experience and overcome the retention challenge.

Patient retention is only 1 of 3 opportunities to positively impact both the patient experience and ClinOps. By introducing a patient-centric procedure, clinical research teams are also empowered to proactively address and avoid safety and protocol compliance concerns. Through this process, these teams are able to mitigate any regulatory risk as well.

Though an industry buzzword, patient centricity holds real and important implications for meeting study milestones while improving the participant experience. By combining clinical intelligence with the right strategy, some of the most innovative sponsors are already taking advantage of patient-centric ClinOps.

References

1. **Visit: www.forteresearch.com/news/infographic-retention-in-clinical-trials-keeping-patients-on-protocols**
2. **Visit: www.mskcc.org/press-releases/despite-pressing-need-survey-finds-most-americans-unlikely-enroll-clinical-trials**

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