



Decentralized Clinical Trials

How to deliver the complex efficiently

37% of sites under enroll. 11% of sites fail to enroll a single patient. (Tufts 2013)

Covid19 has had a huge impact on the clinical trials environment "On 18 March, Addex announced that it would delay the start of a clinical trial to treat involuntary movements in people with Parkinson's disease. The following week, the pharmaceutical giant Eli Lilly in Indianapolis, Indiana, announced that it would halt enrollment in ongoing studies and delay the launch of new trials." (Ledford, H 2020). The Covid19 pandemic has clearly highlighted the weaknesses of the traditional site centric clinical trial designs.

This isn't about taking the complex and making it simple, it's about making the complex happen efficiently and safely.



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"85% of all clinical trials fail to recruit enough patients, 80% are delayed due to recruitment problems and dropout rates are high..." (Biopharmadive.com 2019). With community based clinical trials, not only will patients find participation easier, but sites will see increased and faster recruitment rates and sponsors will be able to recruit patients from wider geographical areas, leading to drugs entering the market quicker and more efficiently.

More than ever, people are talking about direct to patient, decentralized or community based clinical trials, it feels like the most recent buzzword in the industry, but as the organization who pioneered these kinds of studies, 14 years ago, we know that it isn't an easy process. This isn't about taking the complex and making it simple, it's about making the complex happen efficiently and safely.

Ensuring patients are safe, cared for and comfortable during treatment isn't simple; making sure data is collected on schedule and accurately, so that the study either proves the efficacy of a treatment or disproves it quickly isn't simple; coordinating medical professionals, patients, investigational medicinal product to a single point in time and location isn't simple; managing sample collection, on site processing and shipping to central laboratories from multiple, domestic, locations isn't simple. Pulling this all together across multiple patients, locations and visits is very complex. Our operational teams bring together the best in the industry to coordinate each and every study touchpoint and ensure your clinical trial can be run in the patient's communities in an efficient and safe manner; but it isn't simple.

Imagine running a clinical trial from a hospital site; you have three patients to coordinate, you need to liaise with the site pharmacy, ensure samples are collected and processed and data is collected and collated into the system. Now imagine that you are doing that for patients at home. Because they don't have to come to site your patient population has just expanded, instead of 3 patients you have 10 and you now need to coordinate a nurse and courier for every study appointment

The patient needs to be at a fixed location (home, work, school, etc) the nurse needs to arrive on time and the courier needs to arrive within the correct window to ensure the IMP stays within the stability period required. Not only that but the courier needs to have collected the IMP from a central pharmacy that you have liaised with and deliver the samples back to the central lab within the time period for them to be valid. You need to make sure the nurse has all the equipment and supplies they need, including portable centrifuges or other specialist equipment. And then the data collected needs to be checked before it is sent back to the study team. This sounds like a huge undertaking, but it's what MRN deliver daily for our customers. With a visit completion rate of >98% we know what we're talking about when it comes to community based clinical trials.

What do you need to consider?

Here are some of the points you should consider if looking to run community based clinical trials:

1. What does the protocol entail?

- a. What can be done within the protocol in a home/work/school environment? Which visits should happen outside of the site? Is the protocol very visit intensive – be that frequent visits or intensive assessments? What patient centric recommendations can be made to best fit the recruitment, enrollment and retention for the study? MRNs simple rule for research activity taking place outside of the site is that if it can be done by a nurse, the equipment required can be carried, and the IMP is proven to be safe for home administration, then the visit can take place in the home, place of work or school.

2. Who are your patients?

- a. You need to think about your target population; where are they, who are they, what is the prevalence of the disease and how close are those patients likely to be to the sites? "Currently, 70% of potential clinical trial patients live more than two hours from a study center..." (Parexel, 2019)



4. Who or what do you need?

a. A lot of detail is required around the actual scope of what needs to be delivered. Nurses conducting visits have a higher success rate if trained properly. What training and equipment is required for the research activities required? What experience do the nursing professionals require to deliver the research assessments? How do you ensure all research nurses are vetted appropriately? What training materials and support must be created to ensure all activities can be undertaken correctly?

5. Are there country specific regulations that need to be considered?

- a. There may be country specific regulations that may complicate the running of clinical trials in the community. For instance, in some countries we know the administration of certain drug types is forbidden outside of a clinic or hospital environment, or it may require a physician rather than a nurse to perform either the assessments or the administration. It's not just the clinical research regulations that you need to familiarize yourself with, you need to broaden your understanding of the healthcare landscape in all countries that are being used for the study.
- b. As well as regulatory differences country to country, there are also cultural differences to consider as well. In some countries it isn't polite for patients to invite professionals other than their physician into their home and that would extend to nurses.



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Biopharmadive.com 2019



6. What are the data points to be captured?

- a. For early touchpoints in complex studies we suggest detailed oversight from a nurse manager or local country lead to ensure the nurse can complete all research activities accurately. Do you need to include a quality check on data for the first visits per individual nurse? Do you need to perform gap checking for accuracy on source documentation?
- b. While studies are ongoing, we would recommend having independent internal quality check and audit groups checking and monitoring all data on a regular basis. We also suggest using independent auditors to look at all projects and processes. For the best results, you want everyone in the network delivering study visits to work from the same SOPs. For data collection to be consistent it's imperative that your study is managed centrally by your trial vendor.

For some countries COVID lockdown precautions are changing, but the challenges aren't going away. We're seeing the cost of running clinical trials increasing; with current estimates at \$2.5 billion to get a drug to market. (DiMasi, J et al 2015) Traditional clinical trials are taking longer with recruitment and retention pressures continuing to exert force and recruitment and retention rates continuing to drop.

In the twentieth annual analysis of emerging clinical trial enrollment benchmarks from Parexel we see the median number of patients per nda dropping from 5,034 in 2015 to 3,452 in 2017 (Parexel 2018). All of this is wrapped around increasing pressures from regulators who are thirsty for more robust data.

Many organizations are looking at telemedicine to support this dip in recruitment and enrolment for trials with "Nearly two-thirds of research sites monitored by WCG Clinical, a company that collects information on 93% of industry-sponsored trials across 3000 global institutions, have adopted telemedicine in some capacity to conduct trials during COVID-19." (Cahan, E 2020) but we know from experience that telemedicine isn't a one size fits all for clinical trials. It is effective in improving communication around clinical trials but can't efficiently manage the complexities of delivering a decentralized trial. The importance of telemedicine in decentralized clinical trials will be covered in our next upcoming whitepaper.

Conclusion

Our advice would be to look at each protocol on a case by case basis, understand what your patient population needs and adapt accordingly. For over 14 years community based clinical trials have improved recruitment and retention rates, and with the appropriate safety precautions staying in place around site access they are an ideal way to ensure continued research while still ensuring patient safety and data quality. If you are partnering with an expert in the field, make sure they have global reach, central management, and the ability to deliver locally in the communities you need to include.

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Resources

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Medical Research Network Ltd
Talon House
Presley Way
Milton Keynes
Buckinghamshire
MK8 0ES
United Kingdom

Medical Research Network Inc.
8001 N Lincoln Ave
Skokie
IL 60077
USA

E enquiries@themrn.co.uk **W** www.themrn.co.uk

