SYDNEY HEALTH PARTNERS – CLINICAL TRIALS AUDIT

REPORT SUMMARY

Prepared by

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Introduction

The WHO defines clinical trials as 'any research study that prospectively assigns human participants or groups of humans to one or more health-related interventions to evaluate the effects on health outcomes'. This definition is also used by the Australian and New Zealand Clinical Trials Register and other international registers.

Clinical trials provide a vital link between basic science research and the delivery of clinical care, as well as resolve uncertainties regarding disease management. They provide patients with access to leading specialists and cutting-edge therapies, and the opportunity to contribute to improving health outcomes for themselves and/or others. Clinical trials have been found to provide an exceptional return on investment, with thousands of additional quality-adjusted life years resulting in billions of savings to health systems.

Despite the enormous value of clinical trials for patients and the health system, opportunities exist to improve clinical trials performance and productivity in Australia. There is a mismatch between national priority areas and the clinical trials conducted in Australia, as well as rising costs, complexity and regulatory hurdles associated with clinical trials. The New South Wales (NSW) Government and the Office for Health and Medical Research (OHMR) have identified clinical trials as a key focus area and expressed a desire to work with Advanced Health Research and Translation Centres (AHRTCs), such as Sydney Health Partners, to drive improvements in clinical trials in NSW.

In 2017, the OHMR proposed the establishment of consolidated clinical trials support units (CTSUs) in NSW to provide the support and expertise required to avoid lengthy delays in trial start-up, improve accuracy in budgeting and financing for clinical trials, prevent recruitment shortfalls and also provide methodology expertise for clinical trials design.

Improving the conduct of clinical trials is a strategic priority for NSW Health and for Sydney Health Partners. To inform decisions about how to best support clinical trials, Sydney Health Partners initiated an audit of clinical trial activity across its partnership focusing on its four health services (Northern Sydney, Western Sydney and Sydney Local Health Districts, and Sydney Children's Hospital Network (at Westmead). The audit included obtaining quantitative data about clinical trial activity (from the OHMR and directly from our partners' Research Offices), and conducting interviews with key informants across the partnership.

The audit was undertaken between December 2017 and April 2018. The focus of the audit was to inform discussions around how best to support the design and start-up of clinical trials. Other issues, such as whether the 'right' clinical trials are being approved and funded, or whether approved clinical trials are demonstrating health impacts, were beyond the scope of this audit project.

Key Findings

The audit showed that the WHO definition of a clinical trial is not universally used within Sydney Health Partners. This is a significant issue that impacts any comparisons between sites. We therefore report aggregated data across Sydney Health Partners.

OHMR data

LHDs in NSW submit performance data regarding clinical trial activity to the OHMR, including number and type of clinical trials conducted, ethics and governance approval times for clinical trial applications, and time to start participant recruitment. The most recent available data varied from mid-2016 to early 2018, depending on the measure.

In the financial year 2016-2017, around 650 new clinical trials were approved by NSW Health services: 60% were commercially sponsored trials and 40% non-commercial trials (investigator-initiated and collaborative trials). Forty-five percent of all new trials conducted in NSW Health (n=297) were within Sydney Health Partners' health services. In addition, the University of Sydney approved 45 clinical trial applications in 2016.

The OHMR has specified a benchmark of 60 calendar days for review of research applications by human research ethics committees and 30 calendar days for site specific governance approvals (SSAs) across NSW Health. Over the 21 month period 1 July 2016 to 31 March 2018, performance against these benchmarks within Sydney Health Partners varied by site and over time. No site consistently met the OHMR's 'high performing' standard (more than 95% of applications reviewed within the benchmark period).

The OHMR also requests data about the time between ethics submission and first participant enrolment to a clinical trial, and the time from SSA approval to first participant enrolment. The most recent data available from the OHMR was for 2016, and suggested significant delays on both counts.

Research Offices data

Data requested from the Research Offices within Sydney Health Partners related to clinical trial activities and infrastructure. Most data items were not routinely collected by all Research Offices (for example, trial registration numbers, publications arising from trials) or difficult to extract. Information about existing support for clinical trials across our health service partners had been collected in 2017 for another purpose. This showed the following therapeutic areas had clinical trial support across Sydney Health Partners: anaesthesia and pain, cardiology, diabetes, haematology, hepatology, maternal and child health, mental health, metabolic and endocrine, neurology, oncology, oral and gastrointestinal, pharmacology and pharmacokinetics, renal, respiratory, and technology and devices.

Interviews with key informants

Interviews were held with 11 people including Research Ethics and Governance Managers, clinical trial investigators and coordinators, and industry partners. Questions covered: obtaining ethics and governance, gaining methodological support for clinical trials, encountering recruitment and budget shortfalls, and differences in investigator-initiated and collaborative clinical trials versus commercially funded clinical trials. Four themes emerged from the interviews.

Attracting and retaining clinical trials staff – Maintaining appropriate staffing was considered fundamental to the conduct of good clinical trials. Recruiting staff through NSW Health for clinical trials was difficult, as trials often had tight deadlines and the human resources process could be quite demanding and slow. Job security was often lacking due to time-limited external funding, commonly resulting in 12-month employment contracts. Navigating maternity leave was also difficult, with investigators often left short-staffed and unable to fill a position because of the reliance on external funds.

Accessing training for clinical trials – Commercially-sponsored clinical trials often utilised the expertise within the sponsoring company where staff were often well versed in the principals of Good Clinical Practice (GCP) and other regulatory standards. However, for non-commercially sponsored trials, participants believed University and hospital-based staff often had insufficient training in clinical trials (including GCP), and often 'learnt on the job' through experiences and colleagues. At the same time, it was acknowledged that some SHP partners offered courses and workshops relating to clinical trials, GCP and patient consent.

Obtaining clinical trials expertise – Participants acknowledged that various levels of expertise to support clinical trials already existed across Sydney Health Partners, but access and quality was variable. There was wide support for the proposal by the OHMR to establish 'clinical trials support units' (CTSUs) that would include broader access to a range of expertise. A start-up specialist in particular would help reduce the burden on research and governance offices, improve the quality of applications and facilitate more timely initiation of projects.

Improving clinical trials processes – Participants identified a number of initiatives that are underway to strengthen clinical trial activity. For example, members of Sydney Health Partners were proactively fostering relationships with industry. The launch of the ClinTrial Refer app by Sydney Health Partners has helped raise awareness and improve engagement with clinicians, which may help to improve recruitment. Work is also underway within the LHDs and University of Sydney to streamline clinical trials approval processes, although more can be done to ease the administrative burden on researchers.

Recommendations

The following recommendations are made, some of which fall outside the responsibilities of Sydney Health Partners and therefore will require further discussion with other parties.

Recommendation	Responsibility
That all members of Sydney Health Partners adopt the WHO definition of clinical trials to facilitate local and international comparisons of performance.	Sydney Health Partners' member organisations
That the ethics and governance approval processes across Sydney Health Partners members be mapped to identify potential opportunities for harmonisation.	Sydney Health Partners in collaboration with member organisations and the Research Enabler and Clinical Trials Cross-cutting Themes
That awareness of, and access to resources and training to help improve the quality of clinical trial applications be increased. This may include: - Clinical trials checklist and flow chart that details requirements for operationalising clinical trials - Templates for clinical trial applications and protocols (e.g., SPIRIT and TransCelerate protocol templates) - Good Clinical Practice (GCP) training and relevant HREC and governance application training - Start-up specialists who can assist with improving the quality of applications and more timely initiation of approved projects - Expansion and up-skilling of clinical trial methodologists, for example, biostatisticians with clinical trials expertise.	Sydney Health Partners' member organisations facilitated by SHP and the Research Enabler and Clinical Trials Cross-cutting Themes
That staffing conditions for clinical trials coordinators and officers, including job security, professional development, career progression and maternity leave provisions, be improved. This may include: - Developing a NSW Health State award for clinical trial staff - Developing funding models that offer staff more secure employment.	Sydney Health Partners' member organisations in consultation with NSW Ministry of Health/OHMR
That performance against the OHMR metrics be reviewed annually to assess progress and improvement.	Sydney Health Partners' member organisations facilitated by SHP/OHMR

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