Electronic Data Collection
Does it work for you?
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INTRODUCTION
Since the 1990’s processes have evolved with the advent of the world wide web and data collection is increasingly becoming internet based remote data entry. The majority of literature available on this subject is from a sponsor perspective, with particular focus on the time and financial cost savings. Cancer Trials New Zealand surveyed the 6 New Zealand cancer centres to find out their experiences with electronic data entry to date so far.

METHODS
A questionnaire was sent to the adult oncology, paediatric oncology and haematology research teams in New Zealand. These teams are located at each of the 6 regional cancer centres around New Zealand.

Questions covered various aspects relating to the use of electronic case report forms (eCRFs) at sites and how they compared to paper case report forms (paper CRFs).

Responses were received from all 6 oncology centres. Three responses were received from the separate Auckland research teams, and 2 responses were received from 2 Christchurch research teams. (Table 1.)

RESULTS
Since 2007 all the research teams based in the New Zealand oncology centres have been using eCRFs. eCRFs are used for 20-90% of cancer clinical trials currently recruiting at these sites. They compared to paper CRFs.

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Positive aspects of eCRFs included less paper usage and reduced office space requirements. Data security was also considered to be at a similar level or better in some cases. Sites recognised that queries were being received sooner, however they also thought that generally the same amount or more queries were being received. eCRFs have the capacity to create real time time queries (queries raised at time of data entry) which may in fact reduce the amount of queries usually received further down the line as is the case with paper CRFs. It has been known for queries to be sent to sites up to 5 years after the event being queried. If queries can be raised early and resolved quickly this can reduce the time required for data cleaning and result in the final results becoming available sooner.

Sites did prefer paper CRFs particularly around issues relating to data entry, time and training. It was noted that the Christchurch paediatric research group has been using eCRFs for the longest period and at the time of the survey the Auckland and Christchurch paediatric research teams were using eCRFs for more trials (80% and 90% respectively). These two teams had more favourable comments which may be a reflection of their increased familiarity with these systems.

Sites encountered further difficulties with different sponsors using different systems and what may work on one system does not necessarily work on another. Some uniformity should occur in the future with the Clinical Data Interchange Standards Consortium (CDISC). They have developed the Clinical Data Acquisition Standards Harmonization (CDASH) Standards which is a collaborative initiative to develop the content standard for basic data collection fields in case report forms. Whilst the standards are intended to be used by those involved in the planning, collection, management and analysis of clinical trials and clinical data; benefits should also flow through to the end users. Sites can give their feedback via the eClinical Forum. The eClinical Forum is working with industry, vendors and service suppliers who are (or will be) involved in handling of electronic clinical research data. They currently have a survey open to sites with the aim to better understand the experience and needs of site staff with respect to Electronic Data Capture (EDC) and other clinical trial systems. The information collected will be used to improve the way clinical trial systems are provided and used.

DISCUSSION
Positive aspects of eCRFs included less paper usage and reduced office space requirements. Data security was also considered to be at a similar level or better in some cases. Sites recognised that queries were being received sooner, however they also thought that generally the same amount or more queries were being received. eCRFs have the capacity to create real time time queries (queries raised at time of data entry) which may in fact reduce the amount of queries usually received further down the line as is the case with paper CRFs. It has been known for queries to be sent to sites up to 5 years after the event being queried. If queries can be raised early and resolved quickly this can reduce the time required for data cleaning and result in the final results becoming available sooner.

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CONCLUSIONS
From the survey results it is apparent that eCRFs are slowly becoming more common place in the New Zealand cancer centres. As with the introduction of any new system, there still appears to be some issues in establishing a user friendly system. This will hopefully be achieved over time as site staff become more familiar with these systems and some uniformity is established between the different systems used at sites.

REFERENCES
5. Clinical Data Acquisition Standards Harmonization (CDASH)

http://www.eclinicalforum.com/frameisitesurvey.htm