Effectiveness of Patient Portals in Clinical Trial Recruitment

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Background
- Two issues with many clinical trials are identifying patients that meet inclusion/exclusion criteria and meeting timelines with recruitment
- Use of patient portals may help with speeding up recruitment and finding individuals who meet the criteria for a study
- Portals store information on patients that can be filtered by investigators according to inclusion/exclusion criteria, thus identifying patients qualifying for studies
- Automatic messaging to patients through portals can assess interest among patients in participating in trials
- Portals are capable of sending messages to hundreds of patients in 1 minute or less
- Previous techniques include calling potential participants individually, spending 5 or more minutes on each call
- Increased communication in these portals improves patient-investigator relationships

Objective
To determine the effectiveness of using patient portals as a way to enhance patient recruitment for clinical trials.

Method
- A literature analysis was performed looking into studies and case reports published between 2008 to 2018 on the use of patient portals for enrolling patients in clinical trials
- PubMed MeSH search terms included: “patient portals,” “clinical trial recruitment,” “enrollment” and “clinical trial portals.”

Results
- 15 articles were reviewed looking at the use of patient portals in clinical trials
- Patient portals used in clinical trials:
  - Hospital Electronic Medical Records (EMRs)
  - Portals specifically designed for clinical trials (Clinical Conductor, Ripple, eClinical, Study Manager Reveal, etc.)

- Evidence from Case Reports:
  - Access to information stored in patient portals allows investigators to easily identify patient portals, speeding up recruitment
  - Patients recruited through portals exhibit greater likelihood of remaining in studies
  - More than 50% of patients receiving messages through patient portals respond
  - 83% of patients receiving messages consented to participating in clinical trials and met inclusion criteria
  - Drastically decreases costs when using patient portal ($113/patient) compared to telephone ($435/patient) or mail ($559/patient)

- Primary Investigators identify patients more easily
- Impact on Clinical Trials
  - Speeds up recruitment
  - Patients more likely to remain in studies
  - Decreases rate of discontinuation, improving power of study
  - High responsiveness with patient messaging
  - Speeds up recruitment, increases accuracy in meeting trial criteria, reduces screen failure rates

Limitations
- Increased expense to pay the user and maintenance fees for these patient portals
- To be effective, all, or a majority of sites recruiting for a study need to have access to these portals and actively use them with recruitment

Conclusions
- Recruitment for clinical trials remains a challenge and often results in extending timelines and increasing funds in order to find patients who qualify for studies
- Patient portals increase knowledge investigators have on potential subjects and whether or not they will likely qualify for studies based on data stored in the portals
- Messaging within portals allows patients to learn more about clinical trials and decide if they would like to participate before visiting a clinic
- Patient portals improve accuracy of recruitment, reducing screen failure rates and increasing the rate of overall patient recruitment, which creates the potential for decreasing study timelines
- Portals also have the potential to drastically decrease the costs of clinical trials by thousands of dollars, depending on the size of the trial, by decreasing the length of time trials are conducted
- Best practices: remain engaged in patient portals, responsive to questions throughout the trials and use the portals as a way to provide patients with additional information to prevent unnecessary concerns or visits

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