



# Using Electronic Health Records to Streamline Provider Recruitment For Implementation Science Studies

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## Background

Healthcare providers are often targeted as research participants for implementation science studies.

Provider recruitment is a multi-step process that often starts with screening for eligibility.

Manual chart review and provider self-report are commonly employed strategies to determine whether or not a provider is eligible for participation but typically demand substantial time, effort, and resources.

## Objective

To assess the utility of electronic health record data to identify eligible providers for implementation science research using a study of implementing risk-aligned surveillance for bladder cancer patients as a use case.

## Methods

Data within the Department of Veterans Affairs (VA) Corporate Data Warehouse were used to identify patients with record of cystoscopy after bladder cancer diagnosis (surveillance cystoscopy) according to diagnosis and procedure codes.

Procedures were linked to provider data to determine the provider of record and their current location.

Providers who performed  $\geq 10$  procedures in the previous 12 months and currently practicing at 1 of the 6 facilities of interest were considered eligible.

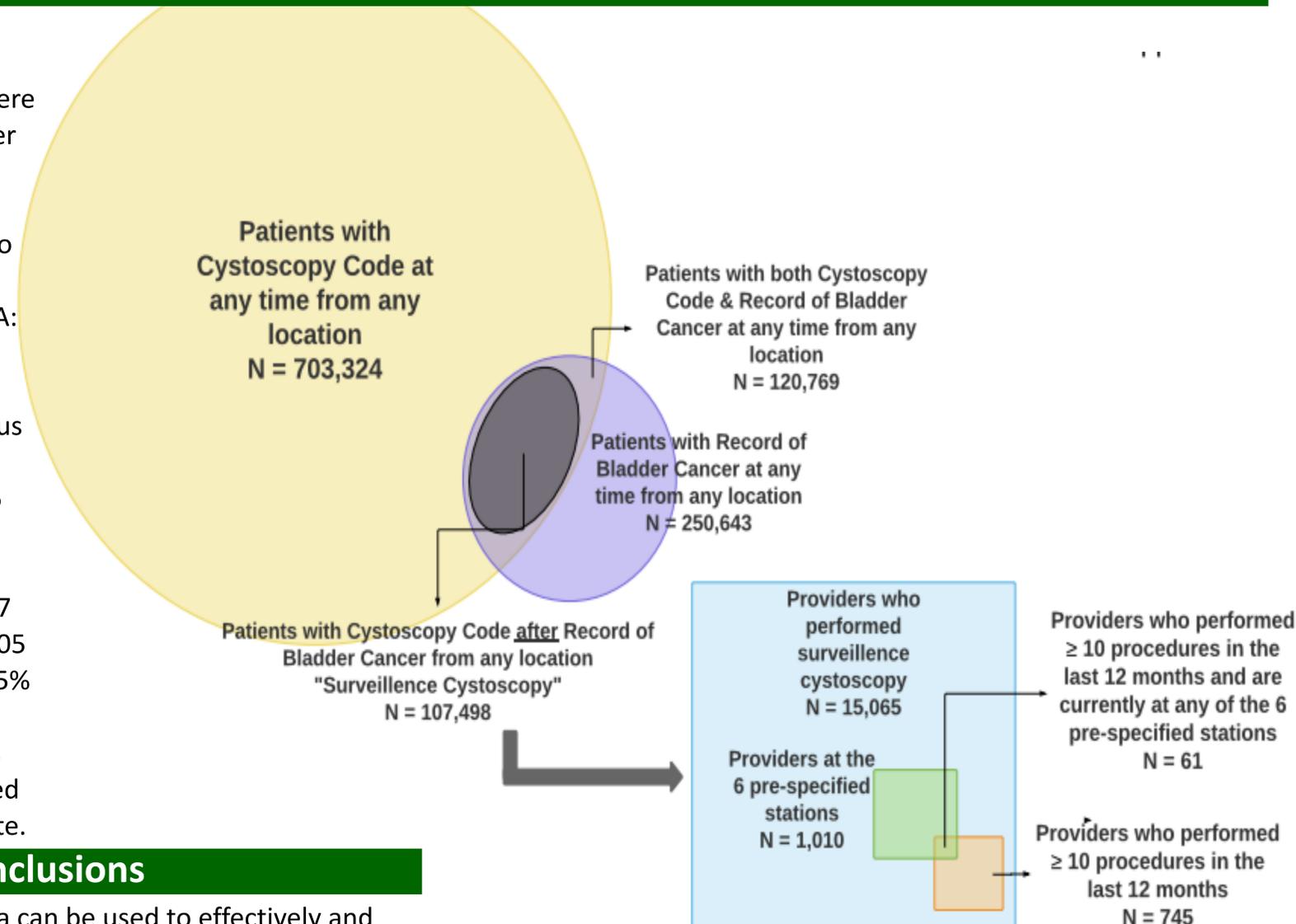
Chart review of all identified procedures from a random sample of 10% of eligible providers were assessed and positive predictive value (PPV) was calculated.

## Results

Over 700,000 patients had record of cystoscopy in VA since 2000, but only 15% were performed as bladder cancer surveillance procedures

Of the 15,065 providers who performed surveillance cystoscopy at any time in VA:

- 61 performed  $\geq 10$  procedures in the previous year and were currently practicing at one of the 6 pre-specified sites
- Random chart review of 7 providers found 102 of 105 procedures (PPV: 97%; 95% CI: 92% to 99%) were surveillance cystoscopies performed by the selected provider on the given date.



## Conclusions

Electronic health record data can be used to effectively and efficiently identify providers when inclusion criteria consists of both patient- (temporal relationship between diagnosis and procedure) and provider-level (frequency of procedure and location of current practice) factors.

Because administrative codes and provider identifiers are collected in all electronic health records, these methods can be translated to provider recruitment in other healthcare systems .

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