

# Electronic Health Record (EHR) Recruitment Tools:

*Determining which tool is best for your study*

# There are many EHR-based tools available for study recruitment purposes. Tools are available within and outside of Epic.

What is Epic?

Epic is a computer application that supports patient care and research, allowing health teams to access, organize, and share electronic health records. Within research, the Epic tools can be used for recruitment purposes, helping to determine study feasibility, identify potential participants, and connect with participants.

## Available tools within Epic:

- Slicer Dicer
- Reporting Workbench (RWB)
- Best Practice Advisories (BPA)
- MyChart

## Available tools outside of Epic:

- Cohort Discovery (Cohort Counts and Limited Data Set)
- Research Data Warehouse (RDW)

# So, what do each of these tools do?

## [Research Data Warehouse \(RDW\)](#)

- **About:** A repository of Epic data from patients and research subjects that can be utilized to identify potential participants and/or obtain retrospective data on current study participants
- **Use to:** Obtain a list of patients who meet inclusion/exclusion criteria or a complete dataset to analyze
- **Staff/Team Requirements:** Use of this tool requires working with OCTRI Informatics Team, no self-service option is available
- **Timeline:** This tool can be used one time, providing a single list of identified patients or data, or continuously, providing multiple lists and data, if a longer date range or continual data is needed
- **Costs:** Cost varies and is based on funding source of study and total project hours. Costs range from \$105 to \$170 per hour
- **Pros:** Ability to search for and identify specific/complex criteria and population subsets, which can save time in recruitment efforts
- **Cons:** There is a cost involved with this service that varies based on the number of project hours and can be higher for more complex projects. For studies with minimal to no recruitment budget, this can be difficult. Additionally, data is not in real time, there is a latent period, which may not work for some studies
- **IRB Requirement:** IRB approval is required to use this tool. Based on the specifics of the study, the [HIPAA prep to research document](#) or [HIPAA waiver of authorization document](#) must be approved by the IRB for your study. The IRB can help to determine the correct required document if needed
- For additional information, to get started with RDW, or to contact OCTRI Informatics, please email [octrihelp@ohsu.edu](mailto:octrihelp@ohsu.edu)

## Cohort Discovery (Cohort Counts and Limited Data Set)

- **About:** Data for this tool comes from Research Data Warehouse (RDW). It is a web-based tool that allows investigators to a) discover patient cohort counts from Epic data for preparatory to research purposes and/or b) receive limited data sets from saved searches with proper IRB approval. Cohort count data is de-identified, however, the limited data sets are not after proper IRB approval
- **Use to:** Assess feasibility of research studies and/or create patient data sets
- **Staff/Team Requirements:** A self-service tool for cohort counts, extracted datasets require working with the OCTRI Informatics Team
- **Costs:** Cost varies and is based on activity and funding source of study. De-identified cohort counts have no cost associated with them outside of study staff time to use the tool. Extracted patient data from saved searches (i.e. limited data set) range from \$0 to \$350 per dataset
- **Pros:** Determine the feasibility of your study and access cohort counts for grant applications at no cost
- **Cons:** Data is high level only, counts on complex criteria and population subsets is unavailable. Additionally, for patient privacy, for cohort counts, data is not in real time and true patient counts are obscured
- **Training Requirement:** A one-time, free training is required before access to Cohort Discovery is granted. Trainings are offered online, once a month, and registration is available through [Compass](#)
- **IRB Requirement:** IRB approval is required for extracting patient data sets from saved cohort count searches. Based on the specifics of the study, the [HIPAA prep to research document](#) or [HIPAA waiver of authorization document](#) must be approved by the IRB for your study. The IRB can help to determine the correct required document if needed. De-identified cohort counts may be accessed without IRB approval
- For additional information, to register for training, or to work with OCTRI Informatics, please email [octrihelp@ohsu.edu](mailto:octrihelp@ohsu.edu)

## Best Practice Advisories (BPA)

- **About:** Identify potential participants that meet your specific criteria through advisory alerts on patient encounters that match your criteria. Encounters that trigger the alert will result in either an automatic 'In Basket' message notifying study staff that the patient may qualify for the study (Silent BPA) or the 'Research Recruitment navigation' section is activated, providing a visual signal to the encounter provider that an alert exists (Passive BPA)
- **Use to:** Identify potential participants in real time based on a new "encounter"
- **Staff/Team Requirements:** Use of this tool requires working with Epic Research Team, no self-service option is available
- **Timeline:** Best for when your protocol has narrow windows of opportunity and you need to identify potential participants in real-time and be notified immediately of participant identification
- **Costs:** Cost varies and is based on total project hours. Average project range is ~\$800-\$1,500
- **Pros:** Real-time identification of patients that meet your specific search criteria
- **Cons:** For Passive BPA, the patient being informed of the study is based on the encounter provider both seeing the alert and being willing to tell the patient about it. There is no guarantee this will happen
- **Training Requirement:** To gain access to Epic, an EpicCare for Research training is required. Trainings are offered twice monthly, and registration is available through [Compass](#).
- **IRB Requirement:** IRB approval is required to use this tool. Specific templates will be provided as you work with the Epic Research Team on your specific project
- For additional information, to get started with BPAs, or to contact the Epic Research Team, please email [epicresearchteam@ohsu.edu](mailto:epicresearchteam@ohsu.edu)

## [Reporting Workbench \(RWB\)](#)

- **About:** Tool within Epic that allows users to perform simple, real-time queries on patient data. The report results are actionable, allowing users to go directly into a patient's chart for further review or to manage tasks
- **Use to:** Access real-time, recent patient data
- **Staff/Team Requirements:** RWB is a self-service recruitment tool
- **Timeline:** Best for when you need to identify real-time data or want to identify potential participants with upcoming health care visits (i.e. "schedule scanning")
- **Costs:** No cost to use
- **Pros:** Real-time identification of patients and there is no cost to use outside of study staff's time to utilize it
- **Cons:** Limited to high level data only, unable to query for complex criteria, large volume of data, or a longer date range
- **Training Requirement:** RWB requires access to Epic Hyperspace, access information can be found [here](#). Help guides and training materials can be found on the [ITG Bridge site](#) and the [Research Data SharePoint site](#). An online, self-paced training [course](#) is available through Compass
- **IRB Requirement:** You may only use RWB for recruitment activities if a [HIPAA prep to research document](#) or [HIPAA waiver of authorization document](#) is approved by the IRB for your study. The IRB can help to determine the correct required document if needed
- For additional information, to get started with RWB, please email [researchdata@ohsu.edu](mailto:researchdata@ohsu.edu)

## SlicerDicer

- **About:** Tool within Epic that allows users to perform simple queries on patient data. Investigators can a) discover patient cohort counts from Epic data for preparatory to research purposes and/or b) access PHI with proper IRB approval
- **Use to:** Assess feasibility of research studies and/or create patient data sets
- **Staff/Team Requirements:** SlicerDicer is a self-service recruitment tool
- **Costs:** No cost to use
- **Pros:** Determine the feasibility of your study and access cohort counts for grant applications at no cost
- **Cons:** Limited to high level data only, unable to query for complex criteria, large volume of data, or a longer date range
- **Training Requirement:** SlicerDicer requires access to Epic Hyperspace, access information can be found [here](#). Help guides and training materials can be found on the [ITG Bridge site](#) and the [Research Data SharePoint site](#).
- **IRB Requirement:** If you are using SlicerDicer to access PHI or view cohort information for small patients groups (11 or fewer) an approved [HIPAA prep to research document](#) or [HIPAA waiver of authorization document](#) is required for your study. The IRB can help to determine the correct required document if needed
- For additional information, or to get started with SlicerDicer, please email [researchdata@ohsu.edu](mailto:researchdata@ohsu.edu)

## MyChart

- **About:** Recruitment invitation sent to a pre-determined group of people through their MyChart account
- **Use to:** Contact individuals identified through Cohort Discovery, RDW or RWB reports
- **Staff/Team Requirements:** Use of this tool requires working with Epic Research Team, no self-service option is available. It is recommended that you speak with Epic Research Team prior to obtaining a list of patients to ensure your study is a good fit for MyChart and that the report is formatted correctly for MyChart requirements and use
- **Timeline:** Best for when you want to reach a large number of potential participants quickly
- **Costs:** Cost varies and is based on total project hours. Average project range is ~\$600-1,000. In addition to the MyChart cost, there is also the potential added cost(s) related to the identified participant report (i.e. RDW, RWB, etc.) being used for MyChart
- **Pros:** Less labor intensive and costly compared to other recruitment methods. Additionally, provides potential participants study information and the ability to respond if they want to be contacted or not, thereby maximizing study staff's time by only following up with those who have expressed interest in the study
- **Cons:** Identified participants must have an active MyChart account in order to be contacted this way. Therefore, it is possible that a varying number of individuals on your list will not be able to be contacted using this tool. Additionally, at this time, Family Medicine patients cannot be accessed
- **IRB Requirement:** IRB approval is required to use this tool. Specific templates will be provided as you work with the Epic Research Team on your specific project
- For additional information, to get started with MyChart, or to contact the Epic Research Team, please email [epicresearchteam@ohsu.edu](mailto:epicresearchteam@ohsu.edu)

# Now that I know what the different tools are, what else do I need to know or think about?

Each EHR-based and Epic tool is different and best for different study scenarios. Before making a decision, identify and think about:

- How many participants do you need for your study?
  - Is your total enrollment goal a very small or large number?
- How long is the recruitment phase?
  - Does enrollment close within a couple of months, a year, etc.?
- How complex is the inclusion and exclusion criteria?
  - Does the participant have to have or not have certain comorbidities?
  - Are certain test results needed for blood and other lab work?
  - Are you looking for a very targeted, specific population subset or a broad, all-encompassing one?
- How time sensitive is identifying and contacting potential participants?
  - Does the participant have to have experienced a specific health event within a small timeframe?
  - Do they need to be identified and contacted in real time as they are seen in a certain department (ex. emergency department)?
  - Are they only eligible after or before certain events, tests, or medications?

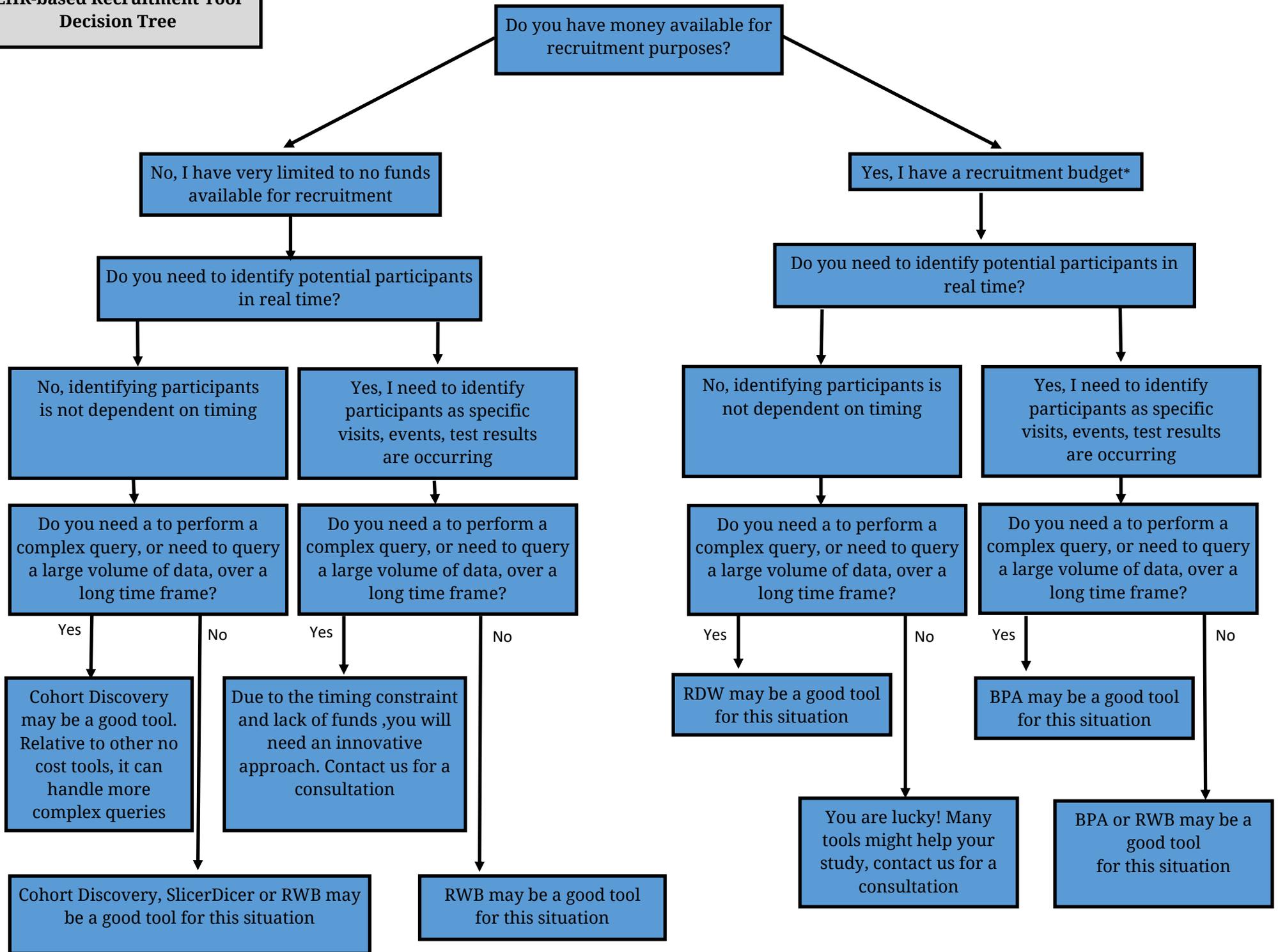
# Considerations continued...

- What is the funding source for my study? What size recruitment budget do I have to work with?
  - Is your study industry sponsored or investigator initiated? Do you have limited funds for recruitment efforts?
  - Epic tools vary in cost, some costs are based on funding source of the study
- What do you want to do with the information from Epic?
  - Get cohort counts for a specific condition/disease?
  - Identify potential participants?
  - Contact them during an already scheduled health care appointment?
  - Send them information about your study?
  - Identify potential participants in real time after a specific appointment or event?
- Do you want more than basic demographics?
  - Are you looking for data to include detailed items like lab test results or will you review the medical chart for more details?
- How does the department you want to recruit from capture data in Epic?
  - Is there a standard coding used? Are there specific things captured with specific diagnoses? Is there consistency in how and when members record data in Epic?
  - The information in Epic is only as useful as how and when it was entered. Use your expertise on your department or collaborators and how they use Epic to tailor your search and maximize your results

Now that I know the different tools and have thought about the particulars of my study, which tool is best for my study?



**EHR-based Recruitment Tool Decision Tree**



\*The no fee tools are still available if there is a recruitment budget. Please see other decision tree for additional information

# EHR-based Recruitment Tool Matrix

EHR-based Recruitment Tool	Study Factors Impacting Recruitment								
	Limited to no budget for recruitment	Have recruitment budget	Need to identify participants in real time	Identifying participants is not required within a narrow timeframe	Study has complex criteria*	Study has broad criteria	Scope of query over a longer time period	Scope of query over a shorter time period	Need to be notified in real time of participant identification
Cohort Discovery (Limited Data Set)	x	x		x		x		x	
SlicerDicer	x	x	x			x		x	
Research Data Warehouse (RDW)		x		x	x	x	x		
Best Practice Advisory (BPA)		x	x		x				x
Reporting Workbench (RWB)	x	x	x			x		x	

*Note: MyChart may be a good tool to use with Cohort Discovery, RDW, SlicerDicer and RWB if you are looking to send potential participants a secure message through the health care system*

# What if I just want to jump straight to my main concern?

Access cohort counts to determine study feasibility	Need to search for potential participants over a specific length of time	Have complex inclusion/exclusion criteria	Need to identify potential participants in real-time	Need to be notified right away of potential participant identification
<ul style="list-style-type: none"> <li>Cohort Discovery or SlicerDicer may be the right tool. Not only will they provide the needed information, but these tools are available and accessible to all, regardless of recruitment budget*, study timeline, funding source, etc.</li> </ul>	<ul style="list-style-type: none"> <li>Query a shorter date range, then SlicerDicer or RWB may be the right tools</li> <li>Query a longer date range, then RDW or Cohort Discovery may be the right tool</li> </ul>	<ul style="list-style-type: none"> <li>RDW may be the right tool</li> </ul>	<ul style="list-style-type: none"> <li>RWB or BPA may be the right tool</li> </ul>	<ul style="list-style-type: none"> <li>BPA may be the right tool</li> </ul>

\*No cost for feasibility option only. There may be a cost related to extracting data sets from saved searches

# Main Concerns Continued...

Need free recruitment services	Want to contact potential participants in person during an already scheduled appointment	Want to let providers know their patient might be eligible for a research study	Want to send potential participants a secure message through the health care system	Want to get a list of potential participants so I can send an email, letter, call them, etc.
<ul style="list-style-type: none"> <li>RWB or SlicerDicer may be the right tool</li> <li>Cohort Discovery may also be an option, but there is sometimes a fee associated with it. Please contact <a href="mailto:octrihlp@ohsu.edu">octrihlp@ohsu.edu</a> for more information</li> </ul>	<ul style="list-style-type: none"> <li>RWB may be the right tool</li> </ul>	<ul style="list-style-type: none"> <li>BPA may be the right tool</li> </ul>	<ul style="list-style-type: none"> <li>MyChart may be the right tool*</li> </ul>	<ul style="list-style-type: none"> <li>Cohort Discovery, SlicerDicer or RDW may be the right tool</li> </ul>

\*Must first create a list through RDW, Cohort Discovery, RWB, or other source and work with the Epic Research Team

# IRB Requirements

IRB review and approval is **required** prior to any access or use of EHR and Epic data and recruitment tools. Your IRB approved protocol should describe your recruitment methods.

- **Cohort Discovery:** IRB approval is required for extracting patient data sets from saved cohort count searches. Based on the specifics of the study, the [HIPAA prep to research document](#) or [HIPAA waiver of authorization document](#) must be IRB approved for your study. The IRB can help to determine the correct required document if needed. De-identified cohort counts may be accessed without IRB approval
- **Research Data Warehouse:** IRB approval is required to use this tool. Based on the specifics of the study, the [HIPAA prep to research document](#) or [HIPAA waiver of authorization document](#) must be IRB approved for your study. The IRB can help to determine the correct required document if needed
- **SlicerDicer:** If you are using SlicerDicer to access PHI or view cohort information for small patients groups (11 or fewer) an approved [HIPAA prep to research document](#) or [HIPAA waiver of authorization document](#) is required for your study
- **Reporting Workbench:** You may only use RWB for recruitment activities if a [HIPAA prep to research document](#) or [HIPAA waiver of authorization document](#) is IRB approved for your study
- **Best Practice Advisories:** IRB approval is required to use this tool. Specific templates will be provided as you work with the Epic Research Team on your specific project
- **MyChart:** IRB approval is required to use this tool. Specific templates will be provided as you work with the Epic Research Team on your specific project

For a full listing of OHSU EHR compliance requirements, please visit the [OHSU IRB website](#). For additional information and questions, please email [irb@ohsu.edu](mailto:irb@ohsu.edu).

*Please note, these IRB guidelines are only for studies where OHSU IRB is the IRB of record.  
If another IRB is the IRB of record (ex. the VA, a central IRB), please email [irb@ohsu.edu](mailto:irb@ohsu.edu) for specific polices and procedures.*

# Where can I find more information on EHR-based and Epic recruitment tools?

Please visit the [OCTRI Informatics](#), [Research Data](#), or [Epic for Research](#) webpages

To learn more about Cohort Discovery, Research Data Warehouse, or to schedule a data management consultation, please email [octrihelp@ohsu.edu](mailto:octrihelp@ohsu.edu)

To learn more about, or get started with, Reporting Workbench or SlicerDicer, please email [researchdata@ohsu.edu](mailto:researchdata@ohsu.edu)

To learn more about, or get started with, Best Practice Advisories or MyChart, please email [epicresearchteam@ohsu.edu](mailto:epicresearchteam@ohsu.edu)

*Not sure who to direct your question to? Please email the OCTRI Navigator at [octri@ohsu.edu](mailto:octri@ohsu.edu)*

*For more information, additional resources, and to request a recruitment consultation, please visit our [website](#) or email us at [OCTRIrecruitment@ohsu.edu](mailto:OCTRIrecruitment@ohsu.edu)*



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