

Appendix E1

Interview Guide Related to PCP and Patient Characteristics

My name is _____ and I am a research coordinator at XXX. Thank you again for agreeing to participate in our interview today. We are interviewing you today because we are interested in your experiences as a PCP who orders diagnostic imaging studies. The purpose of the study is to learn more about what factors influence your decision to follow up or not follow up on, incidental findings on imaging studies.

- I. Our first question is very general. How would you define an incidental finding?
- II. Think back to the last patient in your practice who had an incidental finding on an imaging examination.
 1. Can you describe to me what happened?
 2. How typical is this example (reflecting on cases you have encountered in your practice)?
 - A. Can you expand a little bit on that?
 - B. (Probe for atypical finding) Can you give us an example of an incidental finding that was out of the ordinary?(if asked “what is out of the ordinary” probe “or a finding that alarmed you?”)
 3. If PCP acted on the finding (ordered more tests, referred patient to specialist, etc):
 - A. What patient related factors influenced your decision to pursue this finding?
 - B. What other patient related factors might influence your decision to further evaluate incidental findings?
 - C. What patient characteristics might influence your decision to further evaluate incidental findings?
 4. If PCP did not act on the finding:
 - A. What patient related factors influenced your decision not to pursue this finding?
 - B. What other patient related factors might influence your decision not to further evaluate incidental findings?
 - C. What patient characteristics might influence your decision not to further evaluate incidental findings?
 5. Did you communicate this finding to the patient?
 - A. If YES, how did you communicate this finding to the patient?
 - i. When thinking about communicating incidental findings to patients, what factors do you take into consideration?

- ii. What patient characteristics might influence your decision to communicate a finding to your patient?
 - B. If NO, would you tell us some of the reasons you decided not to share this information with the patient?
 - i. Do you routinely share all incidental findings with your patients?
 - ii. Explain ...
- 6. (If they did not already share an example when they did act on a finding) Again, think back for a moment on the last time you decided to act on an incidental finding. Can you describe to me what happened?
- 7. Was there ever a time when you struggled to decide whether or not to follow-up on an incidental finding? Can you describe what happened?
 - A. What ultimately made you decide to pursue or not pursue follow-up for your patient?
 - B. Who was involved in that decision process?

Appendix E2

Complete PCP Survey on Incidental Imaging Finding Follow-up

(expected delivery time: 20-30 minutes)

My name is _____ and I am a research coordinator at the University of Pennsylvania's Mixed Methods Research Lab (MMRL). Thank you again for agreeing to participate in our interview today. We are interviewing you today because we are interested in your experiences as a PCP who orders diagnostic imaging studies. The purpose of the study is to learn more about what factors influence your decision to follow up or not follow up on, incidental findings on imaging studies.

- I. Our first question is very general. How would you define an incidental finding?
- II. Think back to the last patient in your practice who had an incidental finding on an imaging examination.
 - 1. Can you describe to me what happened?
 - 2. How typical is this example (reflecting on cases you have encountered in your practice)?
 - A. Can you expand a little bit on that?
 - B. (Probe for atypical finding) Can you give us an example of an incidental finding that was out of the ordinary?(if asked "what is out of the ordinary" probe "or a finding that alarmed you?")
 - 3. If PCP acted on the finding (ordered more tests, referred patient to specialist, etc):
 - A. What patient related factors influenced your decision to pursue this finding?

- B. What other patient related factors might influence your decision to further evaluate incidental findings?
 - C. What patient characteristics might influence your decision to further evaluate incidental findings?
4. If PCP did not act on the finding:
- A. What patient related factors influenced your decision not to pursue this finding?
 - B. What other patient related factors might influence your decision not to further evaluate incidental findings?
 - C. What patient characteristics might influence your decision not to further evaluate incidental findings?
5. Did you communicate this finding to the patient?
- A. If YES, how did you communicate this finding to the patient?
 - i. When thinking about communicating incidental findings to patients, what factors do you take into consideration?
 - ii. What patient characteristics might influence your decision to communicate a finding to your patient?
 - B. If NO, would you tell us some of the reasons you decided not to share this information with the patient?
 - C. Do you routinely share all incidental findings with your patients? Explain ...
6. (If they did not already share an example when they did act on a finding) Again, think back for a moment on the last time you decided to act on an incidental finding. Can you describe to me what happened?
7. Was there ever a time when you struggled to decide whether or not to follow-up on an incidental finding? Can you describe what happened?
- A. What ultimately made you decide to pursue or not pursue follow-up for your patient?
 - B. Who was involved in that decision process?
- III. Now we would like to speak about radiology and incidental findings.
1. If PCP acted on the finding
- A. What factors related to the radiology report of the patient above influenced your decision to evaluate this incidental finding? (examples; language in the report, length of the report, inclusion exclusion of recommendations for follow up)
 - B. In general, what factors related to radiology reports influences your decision to evaluate incidental findings. Do you have an example to share?
2. If PCP did not act on the finding

- A. What factors related to the radiology report of the patient above influenced your decision to not evaluate this incidental finding? (examples; language in the report, length of the report, inclusion exclusion of recommendations for follow up)
 - B. In general, what factors related to radiology reports influences your decision to evaluate incidental findings.
 - C. Do you have an example to share?
3. If PCP acted on the finding
- A. Were there any aspects of the radiologist that influenced your decision to act on this incidental finding (examples; you know the radiologist, your knowledge of the radiologist's role in the department, your comfort level with language used by radiologist)
 - B. In general, what aspects of a radiologist might influence your decision to act on an incidental finding (examples; you know the radiologist, your knowledge of the radiologist's role in the department, your comfort level with language used by radiologist)
 - C. Do you have an example to share?
4. If PCP did not act on the finding
- A. Were there any aspects of the radiologist that influenced your decision to NOT act on this incidental finding (examples; you know the radiologist, your knowledge of the radiologist's role in the department, your comfort level with language used by radiologist)
 - B. In general, what aspects of a radiologist might influence your decision to act on an incidental finding (examples; you know the radiologist, your knowledge of the radiologist's role in the department, your comfort level with language used by radiologist)
 - C. Do you have an example to share?
- IV. We are interested in your opinions about radiology reports.
- 1. As a consumer of radiology services, how would you like to see radiologists report incidental findings?
 - A. What specific information regarding incidental findings is helpful to you in your decision of whether and how to pursue follow up?
 - B. What specific information would you like to see in the radiology reports that is currently not included?
 - 2. Is there anything else you would like to share with us related to incidental findings?

Appendix E3

Codes Related to PCP Patient Characteristics

No.	Code	Definition
1	Definitions and examples	Use this code when PCPs define incidental findings and or when they give an example of an incidental finding.
2	Characteristics of patient	Use this code when PCPs speak about how the patient's health, support network, insurance status influence how the PCP deals with the incidental finding. Other examples include history of cancer, risk factors for cancer, age, general health status and clinical context of patient, anxiety, guilt, or mental health issues; parental consent, symptoms, and likelihood of having diagnosis.
3	Patient responses	Use this code when the PCP speaks about the patient's response to learning the incidental finding.
4	Other issues	Use this code when PCPs speak about other issues (eg, medical-legal considerations, a sense of obligation to act, the potential consequence of missing something) that influence follow-up.
5	Characteristics of provider	Use this code when the PCP reflects on their own experience (age, years in practice, patient volume, or experience with a type of incidental finding).
6	Messaging to patients	Use this code when the PCP references how they communicate the finding to patients: 1. PCPs may speak about framing (providing alternative benign explanations) 2. How time influences how they communicate with patients 3. Why they communicate a. Transparency b. Need to be preemptive (patient may see information on line or in discharge paperwork) c. Leverage finding (use the finding to motivate behavior change) 4. Method of communication (e-mail, face-to-face, phone, portal)
7	Delegation of follow-up	Use this code when the PCP speaks about who they delegate the responsibility of following up on a finding (eg, share information with specialist or PCP or let the patient know they need to follow up: how and when. Could be nurse or physician assistant).
8	Characteristics of the radiologist	Use this code when PCPs speak about radiologists: • Specialist (appropriate to organ in questions) vs generalist • Trainee (resident or fellow) vs attending radiologist • Known vs unknown • Academic vs community • Rapport and relationship with radiologist • Access to radiologist
9	Provider information seeking	Use this code when PCPs speak about information seeking as it relates to incidental findings. • Google • Ask co-worker • Ask specialist • Ask radiologist
10	Cascade effect	Use this code when the PCPs reference a chain of events that follow the report of an incidental finding (Cascade effect of incidental finding detection to follow up to resolution).
11	Nonradiologic incidental findings	Use this code when the PCP references other (nonradiologic) tests (eg, blood test, electrocardiography)
12	False positive	Use this code every time a PCP uses this term
13	Artifact	Use this code every time a PCP uses this term
14	Patient dissatisfaction	Use this code every time a PCP speaks about patient dissatisfaction

Appendix E4

Complete PCP Survey Code Book on Incidental Imaging Finding Follow-up

No.	Code	Definition
1	Definitions and examples	Use this code when PCPs define incidental findings and or when they give an example of an incidental findings
2	Characteristics of patient	Use this code when PCPs speak about how the patient's health, support network, insurance status influence how the PCP deals with the incidental finding. Other examples include history of cancer; risk factors for cancer; age; general health status and clinical context of patient; anxiety, guilt, or mental health issues; parental consent, symptoms, and likelihood of having diagnosis.
3	Patient responses	Use this code when the PCP speaks about the patient's response to learning the incidental finding.
4	Other issues	Use this code when PCPs speak about other issues (eg, medical-legal considerations, a sense of obligation to act, the potential consequence of missing something) that influence follow-up.
5	Characteristics of report	Use this code when PCPs speak about the characteristics of radiology reports. Examples include when:

		<p>Radiologist uses assuring language suggests finding is benign Radiologist uses alarming language Malignant potential Radiologist uses indeterminate or uncertain language (hedging) Radiologist provides recommendations for follow up Explicit (modality and timing) Vague Radiologist describes guidelines Radiologist uses grading system or scale (eg, Code Abdomen, Breast Imaging Reporting and Data System) PCPs speak to where in the report the finding is described (body vs impression) PCP mentions typos and/or acronyms</p>
6	Characteristics of finding	<p>Use this code when the PCP discusses the characteristics of the finding (as described in the report)</p> <ul style="list-style-type: none"> • Potential that the finding is an indication of early stage cancer or is indicative of a serious condition (thinking about potential for intervention?) • Potential that the finding is benign (not cancer or not alarming) • The finding common or rare • The finding is unlikely to be clinically significant • Location of finding • Indolent (causes no pain or problems) process or aggressive process
7	Characteristics of provider	Use this code when the PCP reflects on their own experience (age, years in practice, patient volume or experience with a type of incidental finding).
8	Characteristics of the test	Use this code when the PCP references the type of study and how that affected their response to the identification of an incidental finding (eg, MR imaging is a more sensitive test than ultrasonography)
9	Messaging to patients	<p>Use this code when the PCP references how they communicate the finding to patients:</p> <ol style="list-style-type: none"> 1. PCPs may speak about framing (providing alternative benign explanations) 2. How time influences how they communicate with patients 3. Why they communicate <ol style="list-style-type: none"> a. Transparency b. Need to be preemptive (patient may see info on line or in discharge paperwork) c. Leverage finding (use the finding to motivate behavior change) 4. Method of communication (email, face-to-face, phone, portal)
10	Delegation of follow-up	Use this code when the PCP speaks about the person to whom they delegate the responsibility of following up on a finding (eg, share information with specialist or PCP or let the patient know they need to follow up: how and when. Could be nurse or physician assistant).
11	Ideal reports	<p>Use this code when PCPs speak about what they would like to see in radiology reports:</p> <ul style="list-style-type: none"> • Numerical likelihood that finding represents malignancy • Provides a road map for follow-up (right testing) • Descriptive language of nonmalignant possibilities for a finding • Education about findings and full picture with differential diagnosis (especially for uncommon "ifs") • Guidelines • Authority and credibility in radiologist reading study • Location of incidental finding (body and summary). In summary want to know what ignore and what needs to be followed up and how (modality and timing of follow up explicitly stated) and want to know all combinations of follow up depending on whether patient high risk or low risk. • Want to know frequency of finding and whether they need to worry about it • Clear simple language, no acronyms or abbreviations • Only want clinically relevant findings (no interesting radiology diagnosis) • What provider desires from radiologist (communication of concerning findings over the phone) • Consistent form of urgent communication
12	Characteristics of the radiologist	<p>Use this code when PCPs speak about radiologists:</p> <ul style="list-style-type: none"> • Specialist (appropriate to organ in questions) vs generalist • Trainee (resident or fellow) vs. attending radiologist • Known vs unknown • Academic vs community • Rapport and relationship with radiologist • Access to radiologist
13	Provider information seeking	<p>Use this code when PCPs speak about information seeking as it relates to incidental findings.</p> <ul style="list-style-type: none"> • Google • Ask coworker • Ask specialist • Ask radiologist
14	Cascade effect	Use this code when the PCP references a chain of events that follow the report of an incidental finding (cascade effect of incidental finding detection to follow up to resolution)

15	Nonradiologic incidental findings	Use this code when the PCP references other (nonradiologic) tests (eg, blood tests, electrocardiography)
16	False positive	Use this code every time a PCP uses this term.
17	Artifact	Use this code every time a PCP uses this term.
18	Patient dissatisfaction	Use this code every time a PCP speaks about patient dissatisfaction.