

## Appendix C: Mini root cause analysis tool

\*\*For Practice Use Only. Select Information **(4 non-PHI questions)** to be entered in SurveyMonkey\*\*

Suggestions on the use of this form:

- Set aside a 30 minute period to perform this mini-root cause analysis two times per month with members of your core improvement team.
- Designate a team member to identify a diagnostic error that occurred recently (within the last 7 days) **Note: The identified diagnostic error should be one that holds meaning for your practice and for which room for improvement can be identified.**
- A team member/leader should draft an initial description of how the error occurred (Q4 below) in advance of the team meeting.
- Encourage a care team member (provider, nurse, etc) who was involved in the diagnostic error to participate in this mini-RCA meeting (this way, the factors will be best reflected below).

Patient Name: \_\_\_\_\_ Medical Record Number: \_\_\_\_\_

	Question	Practice Response
1.	Type of Diagnostic Error: <b>SurveyMonkey Question1.</b>	<input type="checkbox"/> Missed Adolescent Depression <input type="checkbox"/> Missed Elevated Blood Pressure <input type="checkbox"/> Delayed Actionable Laboratory Value
2.	Date of Error (MM//YY):	__ / __ / __ Approximate time of day (24 hour clock): 00:00
3.	Date Mini-RCA Completed (MM/DD/YY):	__ / __ / __
4.	Please describe the error and how it occurred (this meeting should be discussed briefly but the facts should not be the focus of the project) :	
5.	Where in the Process did the error occur? (Check all that apply within <u>1 Diagnostic</u> Error Type) <b>SurveyMonkey Question2. [logic included for above mentioned Q1]</b>	
	<u>A. Missed Adolescent Depression:</u> <input type="checkbox"/> Patient Screened <input type="checkbox"/> Recognize Abnormal Screen <input type="checkbox"/> Notify Family of Abnormal Screen <input type="checkbox"/> Refer Patient to Mental Health Resources <input type="checkbox"/> Patient attends Mental Health <input type="checkbox"/> Mental Health Provider Feeds Back Information to Practice <input type="checkbox"/> Document Mental Health Diagnosis <input type="checkbox"/> Other (Describe: _____)	
	<u>B. Missed Elevated Blood Pressure:</u> <input type="checkbox"/> Measure BP <input type="checkbox"/> Record BP <input type="checkbox"/> Recognize Abnormal BP <input type="checkbox"/> Notify Family of Abnormal BP <input type="checkbox"/> Act on Abnormal BP <input type="checkbox"/> Document Action on BP <input type="checkbox"/> Other (Describe: _____)	
	<u>C. Delayed Actionable Laboratory Value:</u> Which Lab Test? _____ <input type="checkbox"/> Test Results Returned to Clinic <input type="checkbox"/> Provider Views Test Results <input type="checkbox"/> Recognize Abnormal Results <input type="checkbox"/> Notify Family of Abnormal Results <input type="checkbox"/> Act on Abnormal Results <input type="checkbox"/> Document Action on Abnormal Results <input type="checkbox"/> Other (Describe: _____)	

6.	<p>At first review, <b>why</b> does the core improvement team believe this failure to identify and act on a diagnostic error occurred?</p>	
<p><b>The next step is to perform a <i>Round Robin</i> to have each core improvement team member share their perspective on the top factor/s within the (1) patient/family, (2) provider/nurse/administrative, and (3) system/practice areas that contributed to this error.</b></p> <p><b>Patient/Family Factors:</b></p> <p>What Patient/Family factors contributed to the error? (for example: age, gender, reason for visit, patient comorbidities, language barriers, acute illness, agitation of patient/family, social issues, etc.)</p> <p><b>Provider/Nurse/Administrative Factors:</b></p> <p>What Provider/Nurse/Administrative factors contributed to the error? (for example: type of provider, provider level of training, provider fatigue/impairment, personal stressors of providers, provider disagreements, provider knowledge, provider beliefs about the project or the patient, etc.)</p> <p><b>Systems/Practice Factors:</b></p> <p>What System/Practice factors contributed to the error? (for example: <i>provider volume that day, nurse staffing that day, office assistant staffing that day</i>, time of visit, clinic milieu during visit (chaotic vs. calm), day of the week, increased workload, verbal communication, written communication, computer software or hardware, non-computer equipment, etc.)</p> <p style="text-align: right;"><b>Use the space below to write down the factors noted in each realm.</b></p>		
7.	<p>Record <u>Patient/Family</u> factors that contributed to the error <b>to the right</b> → (for example: age, gender, reason for visit, patient comorbidities, language barriers, acute illness, agitation of patient/family, social issues, etc.)</p>	
8.	<p>Record <u>Provider/Nurse/Administrative</u> factors that contributed to the error <b>to the right</b> → (for example: type of provider, provider level of training, provider fatigue/impairment, personal stressors of providers, provider disagreements, provider knowledge, provider beliefs about the project or the patient, etc.)</p>	
9.	<p>Record <u>System/Practice</u> factors <b>that contributed to the error to the right</b> → (for example: <i>provider volume that day, nurse staffing that day, office assistant staffing that day, time of visit, clinic milieu during visit (chaotic vs. calm)</i>, increased workload, staffing concerns, verbal communication, written communication, computer software or hardware, non-computer equipment, etc)</p>	

Lessons Learned:		
1.	<p>Rank the top three factor(s) that contributed the MOST to this Diagnostic Error? (all 3 can be from the same group or different groups)</p> <p><b>SurveyMonkey Question3.</b></p>	<p><b>Patient factors of:</b> <input type="checkbox"/> gender <input type="checkbox"/> age <input type="checkbox"/> comorbidities, <input type="checkbox"/> insurance status <input type="checkbox"/> reason for visit, <input type="checkbox"/> language barriers, <input type="checkbox"/> acute illness, <input type="checkbox"/> agitation of patient/family, <input type="checkbox"/> social issues, <input type="checkbox"/> other concerning patient factors, defined as: _____,</p> <p><b>Provider/Nurse/Admin. factors of:</b> <input type="checkbox"/> type of provider, <input type="checkbox"/> provider level of training <input type="checkbox"/> provider fatigue/impairment <input type="checkbox"/> personal stressors of providers <input type="checkbox"/> provider disagreements <input type="checkbox"/> provider knowledge <input type="checkbox"/> provider beliefs about the project or the patient, <input type="checkbox"/> other provider/nurse/administrative factors defined as: _____</p> <p><b>Systems factors of:</b> <input type="checkbox"/> patient volume that day <input type="checkbox"/> nurse staffing that day <input type="checkbox"/> office assistant staffing that day <input type="checkbox"/> time of day of visit, <input type="checkbox"/> clinic milieu, <input type="checkbox"/> verbal communication, <input type="checkbox"/> written communication, <input type="checkbox"/> computer software, <input type="checkbox"/> computer hardware, <input type="checkbox"/> non-computer equipment, <input type="checkbox"/> other concerning systematic factors, defined as: _____</p>
2.	<p>What Interventions can we put into place to reduce the risk of this Diagnostic Error occurring again?* (<i>Consult strength of intervention grid below</i>).</p> <p><b>SurveyMonkey Question4.</b></p>	
3.	Who will lead this intervention?	
4.	Date we will start piloting the intervention. (MM/DD/YY):	__ / __ / __
5.	How did you communicate with peers at the clinic about these lessons learned?	

#### \*Strength of Interventions

Weaker Actions	Intermediate Actions	Stronger Actions
Double Check	Checklists/ Cognitive Aid	Architectural/physical plant changes
Warnings and labels	Increased Staffing/Reduce workload	Tangible involvement and action by leadership in support of patient safety
New procedure, memorandum or policy	Redundancy	Simplify the process / remove unnecessary steps
Training and/or education	Enhance Communication (read-back, SBAR etc.)	Standardize equipment and/ or process of care map
Additional Study/analysis	Software enhancement/modifications	New device usability testing before purchasing
	Eliminate look alike and sound- a-likes	Engineering Control of interlock (forcing functions)
	Eliminate/reduce distractions	

- Adapted from John Gosbee, MD, MS Human Factors Engineering
- Remember, sometimes a weaker action is your only option.