

## EQIPP Bronchiolitis

### Barriers for Key Clinical Activity 1: Diagnosis and Assessment

**Aim A): Perform routine radiographic studies for ≤10% of patients when a diagnosis of bronchiolitis is made based on history and physical examination.**

Audience	Data Collection Question	Measure Name	Goal Percentage
<ul style="list-style-type: none"> <li>Emergency Department</li> <li>Inpatient</li> <li>Outpatient</li> </ul>	1. Were radiographic studies obtained? <ul style="list-style-type: none"> <li>Yes</li> <li>No</li> </ul>	Percentage of patients with radiographic studies obtained	10%

**Gaps in Practice for Emergency Department audience:** Limiting the number of routine x-rays done when patient history and examination indicate bronchiolitis

**Potential Barrier:**

- Uncertainty with diagnosis
- Differential diagnosis that includes other etiologies requiring CXR evaluation
- Lack of familiarity with the 2014 AAP Clinical Practice Guideline for bronchiolitis

**Suggested Ideas for Change:**

- Develop medical education opportunities for providers on CPG.
- Develop an ED protocol/order set for the evaluation of children with suspected bronchiolitis that does not include CXR.
- Collaborate with inpatient and outpatient providers to support consistency with the 2014 CPG for bronchiolitis.

**Still Not Seeing Results:**

- Develop a checklist for patients being assessed for bronchiolitis with a reminder that a CXR is only recommended if severity of illness warrants ICU admission.
- Develop a best-practice alert that pops up when CXR/labs are ordered for a patient with a diagnosis of bronchiolitis.

**Aim B): Perform routine laboratory studies for ≤10% of patients when a diagnosis of bronchiolitis is made based on history and physical examination.**

Audience	Data Collection Question	Measure Name	Goal Percentage
<ul style="list-style-type: none"> <li>Emergency Department</li> <li>Inpatient</li> <li>Outpatient</li> </ul>	2. Was viral testing (RSV, Flu AB, any other viral panel) obtained? <ul style="list-style-type: none"> <li>Yes</li> <li>No</li> </ul>	Percentage of patients with viral testing obtained	10%

**Gaps in Practice for Emergency Department audience:** Limiting the number of routine laboratory studies done when patient history and examination indicate bronchiolitis

Potential Barrier:	Suggested Ideas for Change:	Still Not Seeing Results:
<ul style="list-style-type: none"> <li>Uncertainty with diagnosis</li> <li>Lack of familiarity with the 2014 AAP Clinical Practice Guideline for bronchiolitis</li> <li>Differential diagnosis that includes multiple viral etiologies</li> </ul>	<ul style="list-style-type: none"> <li>Develop an ED protocol/order set that does not include viral testing for children admitted with bronchiolitis.</li> <li>Review overuse of lab resources. (Sixty percent to 75% of patients with bronchiolitis are positive for RSV. Viral testing for the assessment of bronchiolitis is only recommended for patients currently receiving palivizumab. Further doses are not recommended for the same season if the patient tests positive for RSV.)</li> </ul>	<ul style="list-style-type: none"> <li>Develop a checklist for patients being assessed for bronchiolitis that includes a reminder that viral testing is only recommended for patients currently receiving palivizumab.</li> <li>Develop a best-practice alert that pops up when CXR/labs are ordered for patient with a diagnosis of bronchiolitis.</li> </ul>

**Aim C): Screen for positive tobacco smoke exposure in 100% of infants and children when accessing for bronchiolitis.**

Audience	Data Collection Question	Measure Name	Goal Percentage
<ul style="list-style-type: none"> <li>Emergency Department</li> <li>Inpatient</li> <li>Outpatient</li> </ul>	7. Did this patient screen positive for exposure to tobacco smoke? <ul style="list-style-type: none"> <li>Yes</li> <li>No</li> <li>No screening performed</li> </ul>	Percentage of patients screened for exposure to tobacco smoke	100%

**Gaps in Practice for Emergency Department audience:** Screening all patients accessing for bronchiolitis for exposure to tobacco smoke

Potential Barrier:	Suggested Ideas for Change:	Still Not Seeing Results:
<ul style="list-style-type: none"> <li>Unfamiliar with studies indicating tobacco smoke exposure increases the risk and severity of bronchiolitis</li> <li>Unfamiliar with evidence that counseling parents about the risks to their children of tobacco smoke exposure is well-received and has an impact</li> </ul>	<ul style="list-style-type: none"> <li>Develop an ED protocol that includes screening for tobacco smoke exposure in all children being evaluated for a respiratory illness.</li> <li>Include screening for tobacco smoke exposure in ED order sets for patients with bronchiolitis.</li> </ul>	<ul style="list-style-type: none"> <li>Develop an ED protocol that includes screening for tobacco smoke exposure in all children.</li> <li>Clearly designate clinical staff responsible for tobacco smoke exposure screening.</li> <li>Develop clear documentation of tobacco smoke exposure screening in the</li> </ul>

<ul style="list-style-type: none"><li>Unfamiliar with 2009 AAP report on risks of secondhand smoke</li></ul>		patient's medical record.	
Aim D): Provide optimal care for 75% of infants and children with a diagnosis of bronchiolitis.			
Audience	Data Collection Question	Measure Name	Goal Percentage
<ul style="list-style-type: none"><li>Emergency Department</li><li>Inpatient</li><li>Outpatient</li></ul>	Questions 1, 2, 3, 4, 5, and 6	Percentage of patients receiving optimal assessment and treatment for bronchiolitis	75%
Gaps in Practice for Emergency Department audience: Providing optimal assessment and treatment for bronchiolitis			
Potential Barrier: <ul style="list-style-type: none"><li>Lack of familiarity with 2014 AAP Clinical Practice Guideline for bronchiolitis</li><li>Difficulty changing longstanding practice</li><li>Noncompliance with 2014 CPG</li></ul>	Suggested Ideas for Change: <ul style="list-style-type: none"><li>Develop medical education opportunities for providers on the CPG.</li><li>Collaborate with inpatient and outpatient physicians to encourage adherence to CPG.</li><li>Develop a QI project to monitor implementation of CPG.</li></ul>	Still Not Seeing Results: <ul style="list-style-type: none"><li>Customize order sets and medical record documentation to facilitate adherence to CPG.</li><li>Educate and engage clinical staff in the implementation of CPG.</li></ul>	

## EQIPP Bronchiolitis

### Barriers for Key Clinical Activity 2: Adherence to Evidence-based Guidelines

Aim A): Limit use of albuterol (or salbutamol) and epinephrine to ≤10% of infants and children with a diagnosis of bronchiolitis.			
Audience	Data Collection Question	Measure Name	Goal Percentage
<ul style="list-style-type: none"><li>Emergency Department</li><li>Inpatient</li><li>Outpatient</li></ul>	3. Were any of the following bronchodilators administered for this patient? <ul style="list-style-type: none"><li>Albuterol (salbutamol)</li><li>Epinephrine</li><li>NA, no bronchodilators administered</li></ul>	Percentage of patients with bronchodilators administered	10%
Gaps in Practice for Emergency Department audience: Limiting use of albuterol (or salbutamol) and epinephrine with patients diagnosed with bronchiolitis			
Potential Barrier: <ul style="list-style-type: none"><li>Patient request for respiratory treatments based on previous experience</li><li>Patient expectation of respiratory treatment based on recommendation/management of referring providers in another setting</li></ul>	Suggested Ideas for Change: <ul style="list-style-type: none"><li>Explain the diagnosis to the family and provide them with both verbal and written education regarding:<ul style="list-style-type: none"><li>How bronchiolitis is managed (supportively)</li><li>Why bronchodilators are not prescribed (because they do not improve the course of the disease)</li></ul></li><li>Communicate with outpatient providers in order to better align management of patients in the community.</li></ul>	Still Not Seeing Results: <ul style="list-style-type: none"><li>Include a reminder for providers within order sets to avoid use of bronchodilators in patients diagnosed with bronchiolitis.</li><li>Discuss the harm from unnecessary bronchodilators (jitteriness, nausea, increased oxygen consumption).</li></ul>	
Gaps in Practice for Inpatient audience: Limiting use of albuterol (or salbutamol) and epinephrine with patients diagnosed with bronchiolitis			
Potential Barrier:	Suggested Ideas for Change:	Still Not Seeing Results:	

<ul style="list-style-type: none"> <li>• Patient expectation or requests for respiratory treatments</li> <li>• Patient expectation of respiratory treatment based on recommendation/management of referring providers in another setting</li> </ul>	<ul style="list-style-type: none"> <li>• Explain the diagnosis to the family and provide them with both verbal and written education regarding:               <ul style="list-style-type: none"> <li>– How bronchiolitis is managed (supportively)</li> <li>– Why bronchodilators are not prescribed (because they do not improve the course of the disease)</li> </ul> </li> <li>• Communicate with outpatient providers in order to better align management of patients in the community.</li> </ul>	<ul style="list-style-type: none"> <li>• Include a reminder for providers within order sets to avoid use of bronchodilators in patients diagnosed with bronchiolitis.</li> <li>• Provide more formal educational opportunities for community providers.</li> <li>• Discuss the harm from unnecessary bronchodilators (jitteriness, nausea, increased oxygen consumption).</li> </ul>
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**Gaps in Practice for Outpatient audience:** Limiting use of albuterol (or salbutamol) and epinephrine with patients diagnosed with bronchiolitis

<p><b>Potential Barrier:</b></p> <ul style="list-style-type: none"> <li>• Patient expectation or requests for respiratory treatments</li> <li>• Patient expectation of respiratory treatment based on recommendation/management of referring providers in another setting</li> </ul>	<p><b>Suggested Ideas for Change:</b></p> <ul style="list-style-type: none"> <li>• Explain the diagnosis to the family and provide them with both verbal and written education regarding:               <ul style="list-style-type: none"> <li>– How bronchiolitis is managed (supportively)</li> <li>– Why bronchodilators are not prescribed (because they do not improve the course of the disease)</li> </ul> </li> <li>• Communicate with other community providers in order to better align management of patients across providers.</li> </ul>	<p><b>Still Not Seeing Results:</b></p> <ul style="list-style-type: none"> <li>• Include a reminder for providers within order sets to avoid use of bronchodilators in patients diagnosed with bronchiolitis.</li> <li>• Provide more formal educational opportunities for community providers.</li> <li>• Discuss the harm from unnecessary bronchodilators (jitteriness, nausea, increased oxygen consumption).</li> </ul>
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Aim B): Limit use of systemic corticosteroids to ≤10% of infants with a diagnosis of bronchiolitis in any setting.			
Audience	Data Collection Question	Measure Name	Goal Percentage
<ul style="list-style-type: none"><li>Emergency Department</li><li>Outpatient</li><li>Inpatient</li></ul>	4. Were systemic corticosteroids administered for this patient? <ul style="list-style-type: none"><li>Yes</li><li>No</li></ul>	Percentage of patients with systemic corticosteroids administered	10%
Gaps in Practice for Emergency Department audience: Limiting use of systemic corticosteroids with patients diagnosed with bronchiolitis			
<b>Potential Barrier:</b> <ul style="list-style-type: none"><li>Patient expectation or requests for systemic steroid therapy</li><li>Patient expectation of administration/ prescription of corticosteroids based on recommendation/management of referring providers in another setting</li></ul>	<b>Suggested Ideas for Change:</b> <ul style="list-style-type: none"><li>Explain the diagnosis to the family and provide them with both verbal and written education regarding:<ul style="list-style-type: none"><li>How bronchiolitis is managed (supportively)</li><li>Why systemic steroids are not prescribed (because they do not improve the course of the disease)</li></ul></li><li>Communicate with outpatient providers to better align management of patients in the community.</li></ul>	<b>Still Not Seeing Results:</b> <ul style="list-style-type: none"><li>Include a reminder for providers within order sets to avoid use of systemic corticosteroids in patients diagnosed with bronchiolitis.</li><li>Provide more formal educational opportunities for community providers.</li></ul>	
Gaps in Practice for Inpatient audience: Limiting use of systemic corticosteroids with patients diagnosed with bronchiolitis			
<b>Potential Barrier:</b> <ul style="list-style-type: none"><li>Patient expectation or requests for systemic steroid therapy</li><li>Patient expectation of administration/ prescription of corticosteroids based on recommendation/management of referring</li></ul>	<b>Suggested Ideas for Change:</b> <ul style="list-style-type: none"><li>Explain the diagnosis to the family and provide them with both verbal and written education regarding:<ul style="list-style-type: none"><li>How bronchiolitis is managed (supportively)</li></ul></li></ul>	<b>Still Not Seeing Results:</b> <ul style="list-style-type: none"><li>Include a reminder for providers within order sets to avoid use of systemic corticosteroids in patients diagnosed with bronchiolitis.</li><li>Provide more formal educational opportunities for community providers.</li></ul>	

providers in another setting	<ul style="list-style-type: none"> <li>– Why systemic steroids are not prescribed (because they do not improve the course of the disease)</li> <li>• Communicate with outpatient providers in order to better align management of patients in the community.</li> </ul>	
<b>Gaps in Practice for Outpatient audience:</b> Limiting use of systemic corticosteroids with patients diagnosed with bronchiolitis		
<b>Potential Barrier:</b> <ul style="list-style-type: none"> <li>• Patient expectation or requests for systemic steroid therapy</li> <li>• Patient expectation of administration/prescription of corticosteroids based on recommendation/management of referring providers in another setting</li> </ul>	<b>Suggested Ideas for Change:</b> <ul style="list-style-type: none"> <li>• Explain the diagnosis to the family and provide them with both verbal and written education regarding:               <ul style="list-style-type: none"> <li>– How bronchiolitis is managed (supportively)</li> <li>– Why systemic steroids are not prescribed (because they do not improve the course of the disease)</li> </ul> </li> <li>• Communicate with other community providers to better align management of patients across providers.</li> </ul>	<b>Still Not Seeing Results:</b> <ul style="list-style-type: none"> <li>• Include a reminder for providers within order sets to avoid use of systemic corticosteroids in patients diagnosed with bronchiolitis.</li> <li>• Provide more formal educational opportunities for community providers.</li> </ul>

Aim C): Perform chest physiotherapy for ≤10% of infants and children with a diagnosis of bronchiolitis.			
Audience	Data Collection Question	Measure Name	Goal Percentage
<ul style="list-style-type: none"><li>Emergency Department</li><li>Inpatient</li><li>Outpatient</li></ul>	5. Did this patient receive any chest physiotherapy? <ul style="list-style-type: none"><li>Yes</li><li>No</li></ul>	Percentage of patients who received chest physiotherapy	10%
Gaps in Practice for Emergency Department audience: Limiting use of chest physiotherapy for patients diagnosed with bronchiolitis			
<b>Potential Barrier:</b> Patient expectation that chest physiotherapy will be used based on recommendation/ management of referring providers in another setting	<b>Suggested Ideas for Change:</b> <ul style="list-style-type: none"><li>Explain the diagnosis to the family and provide them with both verbal and written education regarding:<ul style="list-style-type: none"><li>How bronchiolitis is managed (supportively)</li><li>Why chest physiotherapy is not being used (because it does not improve the course of the disease)</li></ul></li><li>Communicate with outpatient providers in order to better align management of patients in the community.</li></ul>	<b>Still Not Seeing Results:</b> <ul style="list-style-type: none"><li>Include a reminder for providers within order sets to avoid use of chest physiotherapy in patients diagnosed with bronchiolitis.</li><li>Provide more formal educational opportunities for community providers.</li></ul>	
Gaps in Practice for Inpatient audience: Limiting use of chest physiotherapy for patients diagnosed with bronchiolitis			
<b>Potential Barrier:</b> Patient expectation that chest physiotherapy will be used based on recommendation/management of referring providers in another setting	<b>Suggested Ideas for Change:</b> <ul style="list-style-type: none"><li>Explain the diagnosis to the family and provide them with both verbal and written education regarding:<ul style="list-style-type: none"><li>How bronchiolitis is managed (supportively)</li></ul></li></ul>	<b>Still Not Seeing Results:</b> <ul style="list-style-type: none"><li>Include a reminder for providers within order sets to avoid use of chest physiotherapy in patients diagnosed with bronchiolitis.</li><li>Provide more formal educational opportunities for community providers.</li></ul>	



	<ul style="list-style-type: none"> <li>– Why chest physiotherapy is not being used (because it does not improve the course of the disease)</li> <li>• Communicate with outpatient providers in order to better align management of patients in the community.</li> </ul>	
<b>Gaps in Practice for Outpatient audience:</b> Limiting use of chest physiotherapy for patients diagnosed with bronchiolitis		
<b>Potential Barrier:</b> Patient expectation that chest physiotherapy will be used based on recommendation/ management of referring providers in another setting	<b>Suggested Ideas for Change:</b> Explain the diagnosis to the family and provide them with both verbal and written education regarding: <ul style="list-style-type: none"> <li>• How bronchiolitis is managed (supportively)</li> <li>• Why chest physiotherapy is not being used (because it does not improve the course of the disease)</li> </ul>	

Aim D): Limit use of antibacterial medications to ≤15 % of infants and children with a diagnosis of bronchiolitis unless there is a concomitant bacterial infection, or a strong suspicion of one.			
Audience	Data Collection Question	Measure Name	Goal Percentage
<ul style="list-style-type: none"><li>Emergency Department</li><li>Outpatient</li><li>Inpatient</li></ul>	6. Was an antibiotic administered for this patient? <ul style="list-style-type: none"><li>Yes</li><li>No</li></ul>	Percentage of patients with antibiotics administered	15%
Gaps in Practice for Emergency Department audience: Limiting use of antibacterial medications for patients diagnosed with bronchiolitis			
<b>Potential Barriers:</b>  Pressure from patient families to treat with antibiotics	<b>Suggested Ideas for Change:</b> <ul style="list-style-type: none"><li>Educate patients by explaining that bronchiolitis is a viral illness and antibacterials are ineffective against it.</li><li>Avoid unnecessary testing when certain that the diagnosis is bronchiolitis.</li></ul>	<b>Still Not Seeing Results:</b>  Educate families regarding the risks of unnecessary antibiotics.	
Gaps in Practice for Inpatient audience: Limiting use of antibacterial medications for patients diagnosed with bronchiolitis			
<b>Potential Barriers:</b>  Pressure from patient families to treat with antibiotics	<b>Suggested Ideas for Change:</b> <ul style="list-style-type: none"><li>Educate patients by explaining that bronchiolitis is a viral illness and antibacterials are ineffective against it.</li><li>Avoid unnecessary testing when certain that the diagnosis is bronchiolitis.</li></ul>	<b>Still Not Seeing Results:</b>  Educate families regarding the risks of unnecessary antibiotics.	
Gaps in Practice for Outpatient audience: Limiting use of antibacterial medications for patients diagnosed with bronchiolitis			
<b>Potential Barriers:</b>  Pressure from patient families to treat with antibiotics	<b>Suggested Ideas for Change:</b> <ul style="list-style-type: none"><li>Educate patients by explaining that bronchiolitis is a viral illness and</li></ul>	<b>Still Not Seeing Results:</b>  Educate families regarding the risks of unnecessary antibiotics.	

	antibacterials are ineffective against it. <ul style="list-style-type: none"><li>Avoid unnecessary testing when certain that the diagnosis is bronchiolitis.</li></ul>		
Aim E): Provide optimal care for 75% of infants and children with a diagnosis of bronchiolitis.			
Audience	Data Collection Question	Measure Name	Goal Percentage
<ul style="list-style-type: none"><li>Emergency Department</li><li>Inpatient</li><li>Outpatient</li></ul>	Questions 1, 2, 3, 4, 5, and 6	Percentage of patients receiving optimal assessment and treatment for bronchiolitis	75%
Gaps in Practice for Emergency Department audience: Providing evidence-based care for patients diagnosed with bronchiolitis			
Potential Barriers: <ul style="list-style-type: none"><li>Lack of provider knowledge of evidence-based management guidelines</li><li>Lack of adherence to management guidelines</li></ul>	Suggested Ideas for Change: <ul style="list-style-type: none"><li>Utilize organized education opportunities for providers.</li><li>Standardize office practice based on guidelines.</li></ul>	Still Not Seeing Results:  Implement standardized order sets, with best practice alerts, to encourage provider adherence.	
Gaps in Practice for Inpatient audience: Providing evidence-based care for patients diagnosed with bronchiolitis			
Potential Barriers: <ul style="list-style-type: none"><li>Lack of provider knowledge of evidence-based management guidelines</li><li>Lack of adherence to management guidelines</li></ul>	Suggested Ideas for Change: <ul style="list-style-type: none"><li>Utilize organized education opportunities for providers.</li><li>Standardize office practice based on guidelines.</li></ul>	Still Not Seeing Results:  Implement standardized order sets, with best practice alerts, to encourage provider adherence.	
Gaps in Practice for Outpatient audience: Providing evidence-based care for patients diagnosed with bronchiolitis			
Potential Barriers: <ul style="list-style-type: none"><li>Lack of provider knowledge of evidence-</li></ul>	Suggested Ideas for Change: <ul style="list-style-type: none"><li>Utilize organized education opportunities for</li></ul>	Still Not Seeing Results: <ul style="list-style-type: none"><li>Implement standardized order sets, with best</li></ul>	

based management guidelines • Lack of adherence to management guidelines	providers. • Standardize office practice based on guidelines.	practice alerts, to encourage provider adherence.
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## EQIPP Bronchiolitis

### Barriers for Key Clinical Activity 3: Tobacco-smoke Exposure

Aim A): Screen for positive tobacco-smoke exposure in 100% of infants and children presenting with bronchiolitis.			
Audience	Data Collection Question	Measure Name	Goal Percentage
<ul style="list-style-type: none"><li>Emergency Department</li><li>Inpatient</li><li>Outpatient</li></ul>	7. Was this patient screened for exposure to tobacco smoke? <ul style="list-style-type: none"><li>Yes</li><li>No</li></ul>	Percentage of patients screened for exposure to tobacco smoke	100%
Gaps in Practice for Emergency Department audience: Inquiring about the exposure to tobacco smoke of the patient presenting with bronchiolitis			
Potential Barrier: <ul style="list-style-type: none"><li>Unaware of guidelines indicating the need and importance of screening for tobacco-smoke exposure</li><li>Time constraints</li><li>No previous relationship with patient</li><li>Forgetting to do it</li><li>Wanting to avoid confrontation</li><li>Lack of confidence in ability to change patient behavior</li><li>Not wanting to appear judgmental</li></ul>	Suggested Ideas for Change: <ul style="list-style-type: none"><li>Refer to the CPG for bronchiolitis.</li><li>Be aware that providing even brief counseling has been shown to increase quit rates.</li><li>Keep in mind that hospitalization or an emergency room visit is a teachable moment, where the seriousness of the illness can reinforce the message.</li><li>Assign screening to someone else on staff.</li><li>Build the screening task into your EHR template (routine workflow).</li><li>Obtain education on motivational interviewing.</li></ul>	Still Not Seeing Results: <ul style="list-style-type: none"><li>Incorporate a best-practice alert into your EHR, where the TSE screening questions pop up whenever a respiratory order or respiratory diagnosis is placed into the system.</li><li>Have patient families fill out screening questionnaires in the waiting room.</li></ul>	
Gaps in Practice for Inpatient audience: Inquiring about the exposure to tobacco smoke of the patient presenting with bronchiolitis			
Potential Barrier: <ul style="list-style-type: none"><li>Unaware of guidelines indicating the need and importance of screening for smoke exposure</li><li>Time constraints</li><li>No previous relationship with patient</li></ul>	Suggested Ideas for Change: <ul style="list-style-type: none"><li>Refer to the CPG for bronchiolitis.</li><li>Be aware that providing even brief counseling has been shown to increase quit rates.</li><li>Keep in mind that hospitalization or an emergency</li></ul>	Still Not Seeing Results: <ul style="list-style-type: none"><li>Incorporate a best-practice alert into your EHR, where the TSE screening questions pop up whenever a respiratory order or respiratory diagnosis is placed into the</li></ul>	

<ul style="list-style-type: none"> <li>Forgetting to do it</li> <li>Wanting to avoid confrontation</li> <li>Lack of confidence in ability to change patient behavior</li> <li>Not wanting to appear judgmental</li> </ul>	<p>room visit is a teachable moment, where the seriousness of the illness can reinforce the message.</p> <ul style="list-style-type: none"> <li>Assign screening to someone else on staff.</li> <li>Build the screening task into your EHR template (routine workflow).</li> <li>Obtain education on motivational interviewing.</li> </ul>	<p>system.</p> <ul style="list-style-type: none"> <li>Have patient families fill out screening questionnaires in the hospital room.</li> </ul>
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**Gaps in Practice for Outpatient audience:** Inquiring about the exposure to tobacco smoke of the patient presenting with bronchiolitis

<b>Potential Barrier:</b> <ul style="list-style-type: none"> <li>Unaware of guidelines indicating the need and importance of screening for smoke exposure</li> <li>Time constraints</li> <li>Forgetting to do it</li> <li>Wanting to avoid confrontation</li> <li>Lack of confidence in ability to change patient behavior</li> <li>Not wanting to appear judgmental</li> </ul>	<b>Suggested Ideas for Change:</b> <ul style="list-style-type: none"> <li>Refer to CPG for bronchiolitis.</li> <li>Build the screening task into your HR template (routine workflow).</li> <li>Assign screening to someone else on staff.</li> <li>Be aware that providing even brief counseling has been shown to increase quit rates.</li> <li>Obtain education on motivational interviewing.</li> </ul>	<b>Still Not Seeing Results:</b> <ul style="list-style-type: none"> <li>Incorporate a best-practice alert into your HR, where the TSE screening questions pop up whenever a respiratory order or respiratory diagnosis is placed into the system.</li> <li>Have patients' families fill out screening questionnaires in the hospital room.</li> </ul>
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**Aim B): Provide anticipatory guidance and counsel to 100% of caregivers who screen positive for tobacco-smoke exposure.**

Audience	Data Collection Question	Measure Name	Goal Percentage
<ul style="list-style-type: none"> <li>Emergency Department</li> <li>Inpatient</li> <li>Outpatient</li> </ul>	<p>7a. <b>If yes to 7:</b> Did this patient's caregiver(s) receive counseling, referral to cessation resources, or a recommendation to use Nicotine Replacement Therapy provided?</p> <ul style="list-style-type: none"> <li>Yes</li> <li>No</li> </ul>	<p>Percentage of patients exposed to tobacco smoke whose caregivers received counseling, referral to cessation resources, or recommendation to use NRT.</p>	<p>100%</p>

**Gaps in Practice for Emergency Department audience:** Referring caregivers of patients exposed to tobacco smoke to quit-smoking resources

<b>Potential Barrier:</b> <ul style="list-style-type: none"> <li>Time constraints</li> </ul>	<b>Suggested Ideas for Change:</b> <ul style="list-style-type: none"> <li>Give a handout with the quitline number and ask</li> </ul>	<b>Still Not Seeing Results:</b> <ul style="list-style-type: none"> <li>Provide a handout with advice and the quit</li> </ul>
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<ul style="list-style-type: none"> <li>Forgetting to do it</li> <li>Feeling anxiety about prescribing to someone (a parent or caregiver who smokes) who is not your patient</li> <li>Lack of information about smoking cessation resources in the community.</li> </ul>	<ul style="list-style-type: none"> <li>caregivers to self-refer.</li> <li>Assign smoke exposure education to someone else on staff.</li> <li>Build the smoke exposure education task into your EHR template (routine workflow).</li> <li>Provide counseling or referral to the Quit line (1-800-Quit) instead of prescribing.</li> </ul>	<ul style="list-style-type: none"> <li>line number.</li> <li>Show a video about the effects of tobacco-smoke exposure.</li> </ul>
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**Gaps in Practice for Inpatient audience:** Referring caregivers of patients exposed to tobacco smoke to quit-smoking resources

<b>Potential Barrier:</b> <ul style="list-style-type: none"> <li>Time constraints</li> <li>Forgetting to do it</li> <li>Feeling anxiety about prescribing to someone (a parent or caregiver who smokes) who is not your patient</li> <li>Lack of information about smoking cessation resources in the community.</li> </ul>	<b>Suggested Ideas for Change:</b> <ul style="list-style-type: none"> <li>Give a handout with the quit-line number and ask caregivers to self-refer.</li> <li>Assign smoke exposure education to someone else on staff.</li> <li>Build the smoke exposure education task into your EHR template (routine workflow).</li> <li>Provide counseling or referral to the Quit line (1-800-Quit) instead of prescribing.</li> </ul>	<b>Still Not Seeing Results:</b> <ul style="list-style-type: none"> <li>Provide a handout with advice and the quit line number.</li> <li>Show a video about the effects of tobacco smoke exposure.</li> </ul>
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**Gaps in Practice for Outpatient audience:** Referring caregivers of patients exposed to tobacco smoke to quit-smoking resources

<b>Potential Barrier:</b> <ul style="list-style-type: none"> <li>Time constraints</li> <li>Forgetting to do it</li> <li>Feeling anxiety about prescribing to someone (a parent or caregiver who smokes) who is not your patient</li> <li>Lack of information about smoking cessation resources in the community.</li> </ul>	<b>Suggested Ideas for Change:</b> <ul style="list-style-type: none"> <li>Give a handout with the quitline number and ask caregivers to self-refer.</li> <li>Assign smoke exposure education to someone else on staff.</li> <li>Build the smoke exposure education task into your HR template (routine workflow).</li> <li>Provide counseling or referral to the Quit line (1-800-Quit) instead of prescribing.</li> </ul>	<b>Still Not Seeing Results:</b> <ul style="list-style-type: none"> <li>Provide a handout with advice and the quit-line number.</li> <li>Show a video about the effects of tobacco-smoke exposure.</li> </ul>
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## EQIPP Bronchiolitis

### Barriers for Key Clinical Activity 4: Anticipatory Guidance

Aim A): Provide anticipatory guidance and counsel to 100% of caregivers.			
Audience	Data Collection Question	Measure Name	Goal Percentage
<ul style="list-style-type: none"><li>Emergency Department</li><li>Inpatient</li><li>Outpatient</li></ul>	7a. <b>If yes to 7:</b> Did patient's caregiver(s) receive counseling, referral to cessation resources, or recommendation to use Nicotine Replacement Therapy provided? <ul style="list-style-type: none"><li>Yes</li><li>No</li></ul>	Percentage of patients exposed to tobacco smoke whose caregivers received counseling, referral to cessation resources, or recommendation to use NRT	100%
<b>Gaps in Practice for Emergency Department audience:</b> Caregivers of patients exposed to tobacco smoke receive counseling/referral to smoking cessation resources			
<b>Potential Barrier:</b> <ul style="list-style-type: none"><li>Lack of time</li><li>Unfamiliar with evidence that counseling parents about the risks to their children of tobacco smoke exposure is well received and has an impact</li><li>Lack of information about smoking cessation resources in the community</li></ul>	<b>Suggested Ideas for Change:</b> <ul style="list-style-type: none"><li>Develop nursing protocol for family/caregiver education, including smoking cessation at discharge from the ED.</li><li>Develop formal education opportunities for providers.</li><li>Develop protocol to maintain up-to-date community resources for smoking cessation.</li><li>Partner with inpatient and outpatient providers to maintain up-to-date smoking cessation resource information.</li></ul>	<b>Still Not Seeing Results:</b> <ul style="list-style-type: none"><li>Create physician order sets for bronchiolitis that include smoking cessation counseling and referral information.</li><li>Create physician or nurse champion for smoking cessation/referral counseling with clearly delineated role and goals.</li></ul>	
<b>Gaps in Practice for Inpatient audience:</b> Caregivers of patients exposed to tobacco smoke receive counseling/referral to smoking cessation resources			



<b>Potential Barrier:</b> <ul style="list-style-type: none"> <li>• Lack of time</li> <li>• Unfamiliar with evidence that counseling parents about the risks to their children of tobacco smoke exposure is well received and has an impact</li> <li>• Lack of information about smoking cessation resources in the community</li> </ul>	<b>Suggested Ideas for Change:</b> <ul style="list-style-type: none"> <li>• Develop nursing protocol for family/caregiver education, including smoking cessation at discharge.</li> <li>• Develop formal education opportunities for providers.</li> <li>• Develop protocol to maintain up-to-date community resources for smoking cessation.</li> <li>• Partner with ED and outpatient providers to maintain up-to-date smoking cessation resource information.</li> </ul>	<b>Still Not Seeing Results:</b> <ul style="list-style-type: none"> <li>• Create physician order sets for bronchiolitis that include smoking cessation counseling and referral information.</li> <li>• Create physician or nurse champion for smoking cessation/referral counseling with clearly delineated role and goals.</li> </ul>
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**Gaps in Practice for Outpatient audience:** Caregivers of patients exposed to tobacco smoke receive counseling/referral to smoking cessation resources

<b>Potential Barrier:</b> <ul style="list-style-type: none"> <li>• Lack of time</li> <li>• Unfamiliar with evidence that counseling parents about the risks to their children of tobacco smoke exposure is well received and has an impact</li> <li>• Lack of information about smoking cessation resources in the community</li> </ul>	<b>Suggested Ideas for Change:</b> <ul style="list-style-type: none"> <li>• Develop nursing protocol for family/caregiver education, including smoking cessation at discharge from the clinic/office.</li> <li>• Develop formal education opportunities for providers.</li> <li>• Develop protocol to maintain up-to-date community resources for smoking cessation.</li> <li>• Partner with ED and inpatient providers to maintain up-to-date smoking cessation resource information.</li> </ul>	<b>Still Not Seeing Results:</b> <ul style="list-style-type: none"> <li>• Create physician order sets for bronchiolitis that include smoking cessation counseling and referral information.</li> <li>• Create physician or nurse champion for smoking cessation/referral counseling with clearly delineated role and goals.</li> </ul>
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**Aim B): Provide anticipatory guidance and counsel to 100% of caregivers.**

Audience	Data Collection Question	Measure Name	Goal Percentage
<ul style="list-style-type: none"> <li>• Emergency Department</li> <li>• Inpatient</li> </ul>	8. Did this patient receive bronchiolitis education/anticipatory guidance?	Percentage of patient/families who received bronchiolitis education on	100%

<ul style="list-style-type: none"> <li>Outpatient</li> </ul>	<ul style="list-style-type: none"> <li>Yes</li> <li>No</li> </ul>	evidence-based diagnosis, treatment and prevention	
<b>Gaps in Practice for Emergency Department audience:</b> Patient/families receive bronchiolitis education on evidence-based diagnosis, treatment, and prevention			
<b>Potential Barrier:</b> <ul style="list-style-type: none"> <li>Lack of time</li> <li>Lack of standardized, disease-specific protocol for family/caregiver education at time of discharge from ED</li> <li>Unfamiliar with typical duration of illness and measures to decrease transmission of RSV</li> </ul>	<b>Suggested Ideas for Change:</b> <ul style="list-style-type: none"> <li>Develop nursing protocol/order set for patient/caregiver education to be completed before discharge from ED.</li> <li>Develop written patient/caregiver education sheet explaining diagnosis of bronchiolitis and approach to treatment. Include:               <ul style="list-style-type: none"> <li>Duration of illness</li> <li>Length of viral shedding</li> <li>Risk to family members</li> <li>Importance of hand hygiene with handwashing or alcohol-based rubs</li> <li>Smoking cessation</li> </ul> </li> <li>Partner with inpatient and outpatient providers in development of shared disease-specific patient/caregiver education information sheet.</li> <li>Develop formal education opportunities for providers.</li> </ul>	<b>Still Not Seeing Results:</b> <ul style="list-style-type: none"> <li>Work with electronic medical records to develop the ability to send patient education information directly to the patient through their electronic portal.</li> <li>Designate a physician or nurse champion for patient education.</li> </ul>	
<b>Gaps in Practice for Inpatient audience:</b> Patient/families receive bronchiolitis education on evidence-based diagnosis, treatment, and prevention			
<b>Potential Barrier:</b> <ul style="list-style-type: none"> <li>Lack of time</li> <li>Lack of standardized, disease-specific protocol for family/caregiver education at time of discharge from ED</li> <li>Unfamiliar with typical duration of illness and</li> </ul>	<b>Suggested Ideas for Change:</b> <ul style="list-style-type: none"> <li>Develop nursing protocol/order set for patient/caregiver education to be completed prior to hospital discharge.</li> <li>Develop written patient/caregiver education sheet explaining diagnosis of bronchiolitis and</li> </ul>	<b>Still Not Seeing Results:</b> <ul style="list-style-type: none"> <li>Work with electronic medical records to develop the ability to send patient education information directly to the patient through their electronic portal.</li> <li>Designate a physician or nurse champion</li> </ul>	

measures to decrease transmission of RSV	approach to treatment. Include: <ul style="list-style-type: none"> <li>– Duration of illness</li> <li>– Length of viral shedding</li> <li>– Risk to family members</li> <li>– Importance of hand hygiene with handwashing or alcohol-based rubs</li> <li>– Smoking cessation</li> <li>• Partner with ED and outpatient providers in development of shared disease-specific patient/caregiver education information sheet.</li> <li>• Develop formal education opportunities for providers.</li> </ul>	for patient education.
<b>Gaps in Practice for Outpatient audience:</b> Patient/families receive bronchiolitis education on evidence-based diagnosis, treatment, and prevention		
<b>Potential Barrier:</b> <ul style="list-style-type: none"> <li>• Lack of time</li> <li>• Non-standardized, disease-specific protocol for family/caregiver education for clinic visits</li> <li>• Unfamiliar with typical duration of illness and measures to decrease transmission of RSV</li> </ul>	<b>Suggested Ideas for Change:</b> <ul style="list-style-type: none"> <li>• Develop nursing protocol/order set for patient/caregiver education to be completed prior to discharge from the clinic/office.</li> <li>• Develop written patient/caregiver education sheet explaining diagnosis of bronchiolitis and approach to treatment. Include:             <ul style="list-style-type: none"> <li>– Duration of illness</li> <li>– Length of viral shedding</li> <li>– Risk to family members</li> <li>– Importance of hand hygiene with handwashing or alcohol-based rubs</li> <li>– Smoking cessation</li> </ul> </li> <li>• Partner with ED and inpatient providers in development of shared disease-specific patient/caregiver education information sheet.</li> </ul>	<b>Still Not Seeing Results:</b> <ul style="list-style-type: none"> <li>• Work with electronic medical records to develop the ability to send patient education information directly to the patient through their electronic portal.</li> <li>• Designate a physician or nurse champion for patient education.</li> </ul>

	<ul style="list-style-type: none"><li>Develop formal education opportunities for providers.</li></ul>		
Aim C): Provide a copy of the patient's medical summary/discharge plan to 100% of patient's PCP or medical home.			
Audience	Data Collection Question	Measure Name	Goal Percentage
<ul style="list-style-type: none"><li>Emergency Department</li><li>Inpatient</li></ul>	10. Was the discharge plan communicated to the Primary Care Provider/Medical Home? <ul style="list-style-type: none"><li>Yes</li><li>No</li></ul>	Percentage of patients with discharge plan communicated to Primary Care Provider	100%
Gaps in Practice for Emergency Department audience: Discharge plan communicated to PCP or medical home			
Potential Barrier: <ul style="list-style-type: none"><li>Lack of reliable protocol for plan communication</li><li>Lack of PCP contact information</li></ul>	Suggested Ideas for Change: <ul style="list-style-type: none"><li>Set up an automated process and involve support staff in the process.</li><li>Get PCP contact information for each patient on registration and verify this information before discharge.</li></ul>	Still Not Seeing Results: Communicate directly with outpatient practices to ensure reliable contact information is obtained and each practice is aware of the communication process.	
Gaps in Practice for Inpatient audience: Discharge plan communicated to PCP or medical home			
Potential Barrier: <ul style="list-style-type: none"><li>Lack of reliable protocol for plan communication</li><li>Lack of PCP contact information</li></ul>	Suggested Ideas for Change: <ul style="list-style-type: none"><li>Set up an automated process or use support staff to handle this.</li><li>Get PCP contact information for each patient on registration and verify this information before discharge.</li></ul>	Still Not Seeing Results: Communicate directly with outpatient practices to ensure reliable contact information is obtained and each practice is aware of the communication process.	
Gaps in Practice for Outpatient audience: Discharge plan communicated to PCP or medical home			

<b>Potential Barrier:</b> PCP/Medical home not receiving discharge information regarding patients	<b>Suggested Ideas for Change:</b> Designate staff to receive, access, and follow up on emergency room reports regarding the patients seen each day.	<b>Still Not Seeing Results:</b> Ensure that local emergency rooms/hospitals have reliable contact information for outpatient practices and are aware of the communication process.
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**Aim D): Provide a copy of the patient's medical summary/discharge plan to 100% of families.**

Audience	Data Collection Question	Measure Name	Goal Percentage
Emergency Department <ul style="list-style-type: none"> <li>Inpatient</li> <li>Outpatient</li> </ul>	9. Was a medical summary/discharge plan provided to the family? <ul style="list-style-type: none"> <li>Yes</li> <li>No</li> </ul>	Percentage of patients with a medical summary/discharge plan provided to the family	100%

**Gaps in Practice for Emergency Department audience:** Written discharge plan provided to caregivers

<b>Potential Barrier:</b> <ul style="list-style-type: none"> <li>No established process for providing patients with discharge summary</li> <li>The medical summary/discharge plan is not caregiver-friendly</li> </ul>	<b>Suggested Ideas for Change:</b> <ul style="list-style-type: none"> <li>Include discharge summary with other discharge documents given to families prior to leaving medical care.</li> <li>Create a simple, straightforward version of medical summary for patient families. Include:             <ul style="list-style-type: none"> <li>Diagnosis</li> <li>Summary of care received</li> <li>Discharge instructions for home care and follow-up</li> </ul> </li> </ul>
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**Gaps in Practice for Inpatient audience:** Written discharge plan provided to caregivers

<b>Potential Barrier:</b> <ul style="list-style-type: none"> <li>No established process for providing patients with discharge summary</li> <li>The medical summary/discharge plan is not</li> </ul>	<b>Suggested Ideas for Change:</b> <ul style="list-style-type: none"> <li>Include discharge summary with other discharge documents given to families prior to leaving medical care.</li> </ul>
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caregiver-friendly	<ul style="list-style-type: none"> <li>• Create a simple, straightforward version of medical summary for patient families. Include:               <ul style="list-style-type: none"> <li>– Diagnosis</li> <li>– Summary of care received</li> <li>– Discharge instructions for home care and follow-up</li> </ul> </li> </ul>
<b>Gaps in Practice for Outpatient audience:</b> Written discharge plan provided to caregivers	
<b>Potential Barrier:</b> <ul style="list-style-type: none"> <li>• No established process for providing patients with discharge summary</li> <li>• The medical summary/discharge plan is not caregiver-friendly</li> </ul>	<b>Suggested Ideas for Change:</b> <ul style="list-style-type: none"> <li>• Include discharge summary with other discharge documents given to families prior to leaving medical care.</li> <li>• Create a simple, straightforward version of medical summary for patient families. Include:               <ul style="list-style-type: none"> <li>– Diagnosis</li> <li>– Summary of care received</li> <li>– Discharge instructions for home care and follow-up</li> </ul> </li> </ul>