phn
EASTERN MELBOURNE
An Australian Government Initiative

Thunderstorm Asthma

Quality Improvement Activity for General Practice

Acknowledgement of Country

Eastern Melbourne PHN acknowledges the Wurundjeri people and other peoples of the Kulin Nation on whose unceded lands our work in the community takes place. We pay our respect to Aboriginal and Torres Strait Islander cultures; and to Elders past and present EMPHN is committed to the healing of Country, working towards equity in health outcomes, and the ongoing journey of reconciliation.

Disclaimer

About this toolkit – Thunderstorm Asthma

Thunderstorm Asthma is a spring and early summer phenomenon that can cause severe and life-threatening episodes of asthma in at-risk individuals. In this quality improvement activity, general practice teams will be provided tips and information to prepare your practice and patients for Thunderstorm Asthma events.

Outcomes of this activity	• Implement practice preparedness activities to respond to Thunderstorm Asthma events • Identify relevant Thunderstorm Asthma HealthPathways • Implement activities to increase review/recording of allergy status (Allergic rhinitis) to assist with identification of patients at risk of Thunderstorm Asthma • Identify patients at risk of Thunderstorm Asthma and develop a targeted campaign to increase patient education and awareness

How to use this toolkit

The steps in this toolkit provide a practical guide outlining quality improvement activities to prepare your clinic and patients to respond to Thunderstorm Asthma events.

Starting point	Identify your QI team and QI activity communication processes
Step 1	Update your team on latest Thunderstorm Asthma information
Step 2	Prepare your clinic to be ready to treat at risk patients
Step 3	Increase recording of patient allergies and allergy reaction in your clinical software
Step 4	Develop an education and awareness campaign for at risk patients
Finishing point	Sustainability check list

Recording your improvement for this activity

It is recommended to review each improvement step and select what may be appropriate for your general practice to consider undertaking and test using Plan Do Study Act (PDSA) cycles to make sustainable changes and record key learnings for your practice team. Use the following template to record your activities.

📁 **PDSA Example:** Thunderstorm Asthma MFI PDSA Example Template

Where to get help?

EMPHN general practice improvement & digital enablement: digitalhealth@emphn.org.au

EMPHN practice support: practicesupport@emphn.org.au

HealthPathways Melbourne: info@healthpathwaysmelbourne.org.au

Starting point:
Identify your QI team and QI activity communication processes

Identify your change team	• Identify the lead and practice team members to drive quality improvement work • Assign roles and responsibilities according to staff skill, interest and position. • Allocate protected time for the QI team to perform required tasks e.g. 1hr per week in calendar. • Plan frequency of meetings for QI team. • Provide access to project files and related policy and procedures
Communication with the practice team	• Identify who will need to be kept informed. • Identify the method(s) that will be used to inform and update all staff of any changes as a result of the QI activity e.g. staff/Clinical/Admin/Nurse meetings, email, noticeboard, group chat. • Ensure all staff are advised of the chosen communication(s) method. • Provide monthly updates to all staff of ongoing changes e.g. add QI to staff/Clinical/Admin/Nurse meetings. • Allow staff to contribute ideas and provide opportunities for staff feedback. • Distribute minutes/action points following any meetings held and ensure staff are aware of any follow-up needed.

Step 1: Update your team on latest Thunderstorm Asthma information
Tasks to complete this activity:

1. Update your clinical team
Refer to HealthPathways Melbourne **Thunderstorm Asthma** Pathway for
- up-to-date assessment
- emergency management of Asthma
- resources for health professionals and for patients

Pathway demonstration: Thunderstorm Asthma Pathway Instructional Video
Weblink: Thunderstorm Asthma Pathway

Need Access to HealthPathways?
Register here or email the team at info@healthpathwaysmelbourne.org.au

2. Update all staff
Ensure all staff are aware of appropriate triage and screening processes to ensure that appointments are not delayed and that patients are able to be seen face-to-face or advised to attend the emergency department.

Further information for health professionals:

Key resources	Details
Health Vic	• Epidemic Thunderstorm Asthma: resource for health professionals • Thunderstorm Asthma: Campaign Toolkit
National Asthma Council Australia Asthma Handbook	• Preventing Thunderstorm Asthma in individuals • Thunderstorm Asthma
National Asthma Council Australia	• Allergic Rhinitis Treatment Chart • Epidemic Thunderstorm Asthma
For monitoring risk	• Vic Emergency Thunderstorm Asthma Forecast • Melbourne Pollen Count and Forecast

Step 2: Prepare your clinic to be ready to treat at risk patients

Tasks to complete this activity:

Practice Preparation:

1. Develop a practice plan for thunderstorm asthma events and underline allocate a staff member to monitor risk including pollen count. Take this opportunity to review Criterion C3.3 A to update as needed in your emergency response plan.
2. Review stock of emergency equipment (stock of inhalers, spacer devices, oxygen supply and masks).
3. Use a checklist to assist in health service, emergency department or urgent care centre planning. Sample checklist: Epidemic Thunderstorm Asthma Check list
4. Ensure current Asthma emergency management posters are visible in all treatment rooms

Key resources	Details
Asthma Emergency Management Posters	• Initial Management of life-threatening acute asthma in adults and children • Asthma first aid

> **Activity Check in**
> Did you complete this activity? If yes, document your completed activity using the PDSA template

Step 3: Recording of allergies to identify at risk patients

The main risk factors for thunderstorm asthma are:

• Seasonal allergic rhinitis occurring in springtime (hay fever), with or without known asthma OR
• confirmed hypersensitivity to ryegrass pollen (e.g., positive skin prick test or high ryegrass-specific IgE) AND exposure to outdoor air or wind gusts, just before and during a thunderstorm, on a day with high level of airborne grass pollen

Source: National Asthma Council – Thunderstorm Asthma Information for Health Professionals

Tasks to complete this activity:

Review/update patient allergy status to ensure accurate recording of allergic rhinitis and allergy reaction to assist with identifying patients at risk. There are a number of ways to collect this information:

• New patient form
• Existing patient details update form
• Using a check-in Kiosk prompt
• Walrus Tool – Prompts at the point of care

To complete this activity, refer to **PDSA template Increasing allergy and reaction recording** for:

• Steps to increase number of patients with allergy and allergy status recorded
• POLAR walkthrough – Identify how many patients have allergy status recorded
• MD and BP instructions – recording allergy and allergy reactions

Did you know?

Undertaking this task will assist your practice with meeting RACGP Standards for General Practice 5th Edition, Criterion QI2.1 – Health Summaries: "Our active patient health records contain a record of each patient's known allergies."

Key resources	Details
RACGP standards	Criterion Q12.1 – Health Summaries

> **Activity Check in**
> Did you complete this activity? If yes, document your completed activity using the PDSA template

Step 4: Develop an education and awareness campaign for at risk patients

The aim of this activity is to identify your patients at most risk and increase education and awareness of thunderstorm asthma events.

Tasks to complete this activity:

1. **Whole of practice patient education**
   - Print dust storm/Thunderstorm Asthma fact sheet for waiting room and ensure translated resources are available where required.
   - Order posters online, including translated resources

Key resources	Details
Fact Sheet	Dust storm/Thunderstorm Asthma fact sheet
Posters	Department of Health – Epidemic thunderstorm asthma toolkit

2. **Opportunistic education and awareness**
   - For patients attending the practice for other reasons, use opportunity to update patient allergies (in particular if they suffer from allergic rhinitis) and provide patient education about thunderstorm asthma where appropriate.

3. **Targeted education and awareness**
   - Identify patients at risk – refer to table below to identify target cohorts:

Source: National Asthma Council – Thunderstorm Asthma Information for Health Professionals

MAIN RISK FACTORS
- Seasonal allergic rhinitis occurring in springtime (hay fever), with or without known asthma OR   - confirmed hypersensitivity to ryegrass pollen (e.g., positive skin prick test or high ryegrass-specific IgE) AND exposure to outdoor air or wind gusts, just before and during a thunderstorm, on a day with high level of airborne grass pollen

RISK FACTORS FOR SEVERE SYMPTOMS (IN ADDITION TO MAIN RISK FACTORS
• Current asthma (especially if poorly controlled) • Not taking an ICS-containing asthma preventer • History of asthma
POSSIBLE ADDITIONAL RISK FACTORS FOR SEVERE AND LIFE-THREATENING SYMPTOMS
• Asian ethnic background • Young adult age group

Tip: Create list of target cohorts – Use <u>POLAR walkthrough Thunderstorm Asthma</u> to assist with this task

Develop an awareness and education campaign for the identified cohort and use practice communication systems for promotional material:
- Social media and email campaign.
- Videos for waiting room tv.
- Website and newsletter.
- Patient education sessions.

Refer to <u>Thunderstorm Asthma: Campaign Toolkit</u> for resources

Consider information to include in communication (depending on target cohort):

- Make an appointment with GP for an Asthma risk assessment or to update your Asthma action plan
- Monitor the daily pollen count during spring and early summer (Emergency App and <u>Home - Melbourne Pollen</u>

Further information for patients:

Key resources	Details
Asthma Australia	<u>Thunderstorm Asthma – Free online course including first aid information</u>
Better Health Channel	<u>Thunderstorm Asthma</u> <u>Epidemic Thunderstorm Asthma (Fact Sheet)</u>
Pollen Count	<u>Melbourne Pollen Count and Forecast</u> Vic Emergency – <u>Thunderstorm Asthma Forecast</u>
National Asthma Council	<u>Asthma first aid</u> <u>Pollen Triggers My Asthma and Allergies (Fact Sheet)</u> <u>Thunderstorm Asthma (Fact Sheet)</u>

Activity Check in
Did you complete this activity? If yes, document your completed activity using the PDSA template

Finishing point: Sustainability check list – maintaining the change

Document	• Have you recorded your completed activities? • Resource: <u>PDSA Template</u>
Action	• Adopt: excellent work, embed that change. • Adapt: determine if a change is needed to the plan and start a new PDSA. • Abandon: Rethink the next PDSA • Lessons can be learned from PDSAs that are abandoned. Keep a record of learnings.
Sustaining project outcomes	Consider which practice documentation may need to be updated to include the change: • Updates to Policy and Procedure manual. • Specific task procedures. • Local signs or instructions. • Staff work practices. • Position descriptions. • Staff induction. • Staff skills development or education.
Communicate	• QI project outcome feedback to staff. • Present project strengths and challenges.
Celebrate	• Celebrate your outcomes and achievements by sharing a with a morning tea with your team.
Reflect and review	• Discuss project strengths and challenges. • Annually review the PDSA outcomes to ensure activities are still being adhered to and completed • Annually review your topic specific activity results. Identify gaps, areas for improvement and set new activity targets if applicable. • Where to next on your continuous QI journey? • Consider potential topics for a new CQI activity, and how your experience with this activity can help you to be more efficient and effective

Quality Improvement Activity – Thunderstorm Asthma

Appendix 1: Sample PDSA – Thunderstorm Asthma

MODEL FOR IMPROVEMENT (MFI) SECTION – To be completed *before* completing PDSA section	
Practice Name:	Date:
Who will be the lead for this activity (name):	PIP QI Quarter:

GOAL
As a clinic, decide what you are trying to achieve
By answering this question, you will develop your GOAL for improvement. It important to use a S.M.A.R.T (**S**pecific, **M**easurable, **A**chievable, **R**elevant, **T**ime bound) goal that clearly states what you are trying to achieve.
In readiness for the at-risk period for thunderstorm asthma (Oct-Dec), we will: 1. Ensure all team members are up-to date with assessment and emergency management of Asthma   2. Generate awareness of thunderstorm asthma for at risk patients during the month of (insert date)   3. Increase the recording to (insert percentage) of patient allergies and allergy reaction in our clinical software to easily identify patients at risk

MEASURE
How will you measure the improvement for this activity?
By answering this question, you will determine what you need to **MEASURE** to monitor whether a change is leading to an improvement and the achievement of your goal. Include how you will collect your data (e.g. clinical software, data extraction tool, patient surveys etc). Record and track your baseline measurement to allow for later comparison.
1. Number of at-risk patients receive information about thunderstorm asthma (manual measure – e.g. number of SMS messages sent)   2. Secondary measure: Allergy status and reaction recording

Baseline Measurement:		**Date:**	

Ideas
What changes can we make that will result in improvement?
By answering this question, you will generate a list if **IDEAS** (activities) that will lead to achieving the stated GOAL above. List each activity separately below and add more lines if needed. There can be as few or as many as the practice decides and can be as big or small as your practice can manage. You will test these ideas using part 2 of this template, the Plan, Do, Study, Act (PDSA) cycle.

IDEA:	Update our team on latest Thunderstorm Asthma information
IDEA:	Prepare our clinic to be ready to treat at risk patients
IDEA:	Increase the recording of patient allergies and allergy reaction in your clinical software
IDEA:	Develop an education and awareness campaign for at risk patients

Note: each new GOAL will require a new MFI plan

PLAN DO STUDY ACT (PDSA) SECTION – To be completed *after* completing the MFI section above

You will have noted your **IDEAS** for testing when you listed activities in the MFI section above. You will use this template to test an idea. Each idea may need more than one PDSA to fine tune the plan before you consider implementing on a broader scale.

IDEA
Record the change idea you are testing

From your ideas (activities) your team has listed, choose one activity to test using a PDSA

Idea: Develop an education and awareness campaign for at risk patients

PLAN
Briefly describe what exactly you will do to test your idea

Record **who** will do what; **when** they will do it (day, time etc) and for **how** long (1 week, 2 weeks etc); and where (if applicable); the data to be collected; and **predictions** about the outcome.

We will conduct an awareness campaign during the month of September and promote in practice wait room and via practice online platforms. We will conduct a targeted campaign for at risk patients via SMS led by our lead nurse inviting patients to attend the clinic for Asthma review of Asthma Action Plan.

Predictions: We predict that we may receive some enquiries from patients requesting an asthma risk assessment or updated Asthma Action plan.

List the steps necessary to complete this activity	Person responsible	When (due date)	Was this step completed?
1. Display posters and patient brochures for waiting room. Use awareness videos on waiting room tv			
2. Opportunistically, review existing patient allergy status when attending clinic for other reasons			
3. Use POLAR to develop list of at-risk patients. Develop SMS messaging and contact identified patients and including link to education resources			
4. Record number of at-risk patients that were sent information about thunderstorm asthma			

DO
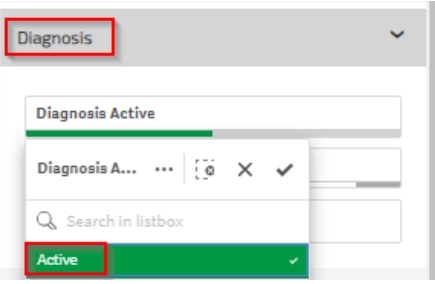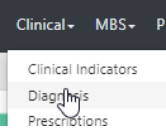Was the activity carried out as planned? ☐Yes ☐ No, if not why? Document observations
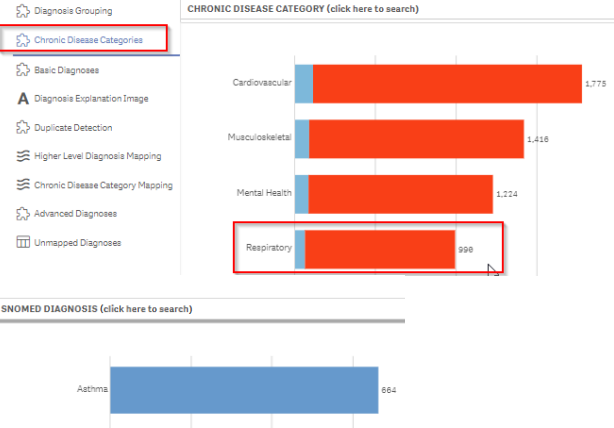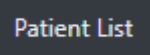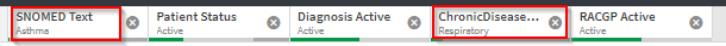
STUDY
Record, analyse and reflect on results. Did the results match your predictions?
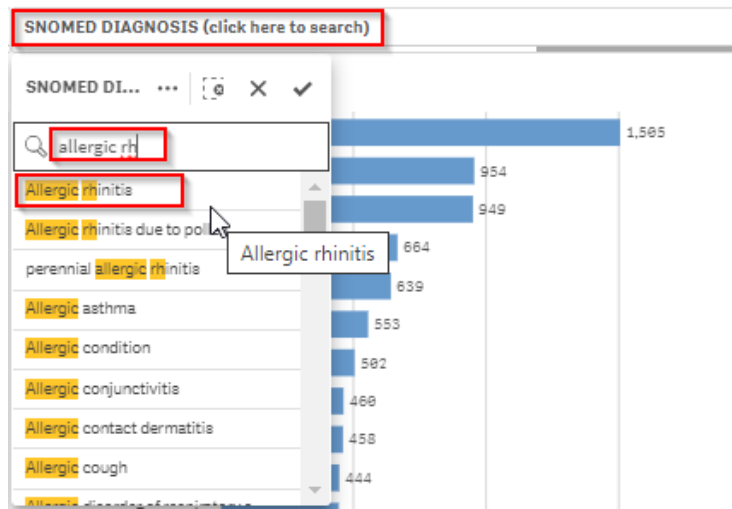
Detail any **barriers** that your clinic encountered and list your **key findings** during and at the end of your activity

| **What was the quantitative change/difference** between your baseline data and this activity's results: | Baseline measurement: | What was the end of activity measurement? |
| | _ _ _ _ _ % | _ _ _ _ _ % |

ACT
Did this activity meet your stated goal? In the table below, select if you will choose to either Adopt, Adapt or Abandon

Tick one	Description	Details
☐Adopt	Select changes to implement on a larger scale and develop an implementation plan and plan for sustainability.	
☐Adapt	Improve the change and continue testing plan. What will be next PDSA cycle?	
☐Abandon	Discard this change idea and try a different one.	

Communicate the results of your activity with your whole team. Celebrate any achievements, big or small.

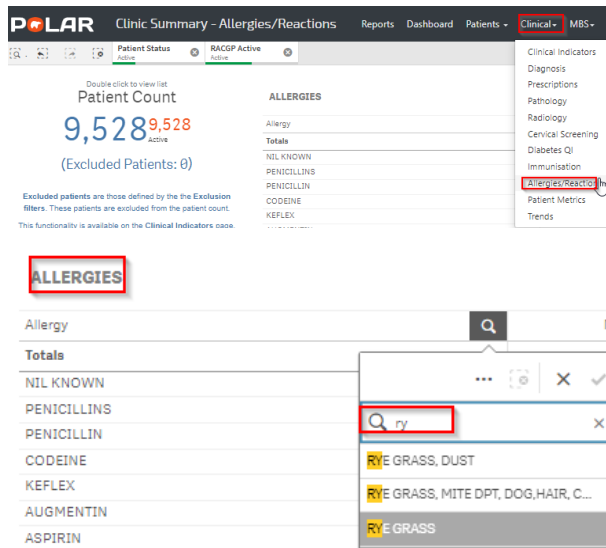## Appendix 2: POLAR Walkthrough - Thunderstorm Asthma: Identify patients at risk

Step 1 Open POLAR and from the Reports Select Clinic Summary Report	 **Clinic Summary Demo** Demo for clinics, including clinical indicators
Step 2 Add the Active and RACGP Active patient filters via the shortcut on the right-hand side	RACGP & Practice Active Patients *CURRENTLY SELECTED* ✓
Step 3 Select Diagnosis then select Diagnosis Active filter from the filters on the left-hand side	Diagnosis ⌄ Diagnosis Active Diagnosis A... ··· ⊡ ✕ ✓ 🔍 Search in listbox Active ✓
Step 4 Under Clinical select Diagnosis	Clinical ▾ MBS ▾ P Clinical Indicators Diagnosis Prescriptions
Step 5 From the Chronic Disease categories tree select Respiratory Then select Asthma under the Snomed Diagnosis *This is a list of your Active/RACGP Active patients with a diagnosis of Asthma*	Diagnosis Grouping Chronic Disease Categories Basic Diagnoses Diagnosis Explanation Image Duplicate Detection Higher Level Diagnosis Mapping Chronic Disease Category Mapping Advanced Diagnoses Unmapped Diagnoses CHRONIC DISEASE CATEGORY (click here to search) Cardiovascular — 1,775 Musculoskeletal — 1,416 Mental Health — 1,224 Respiratory — 998 SNOMED DIAGNOSIS (click here to search) Asthma — 664
Step 6 Go to patient list up the top right-hand side to export the list for sorting	**Patient List**
Step 7 Remove SNOMED Text Asthma and the Chronic Disease Respiratory filter by	SNOMED Text ⊗	Patient Status ⊗	Diagnosis Active ⊗	ChronicDisease... ⊗	RACGP Active ⊗ Asthma	Active	Active	Respiratory	Active

selecting the X then under Diagnosis/Diagnosis Snomed type in the search Allergic rhinitis then select the appropriate diagnosis This is a list of your Active/RACGP Active patients with a diagnosis of allergic rhinitis **Repeat Step 6**	
Step 8 You may want to do additional searches for the following cohorts: Patients who have a confirmed allergy to Rye Grass This can be found under Clinical Allergies/ Reactions Type Rye in the search or allergic rhinitis and select the appropriate allergies. You may need to select several depending how your Clinicians are recording. **Repeat Step 6**	
Next Search:	**Consider other searches example:** • Patients with a diagnosis of Asthma not taking preventer medication • identification of patient cohorts with Asian ethnic background or young adult age group.

Quality Improvement Activity – Thunderstorm Asthma