



ThinkAskLearn
Health Professional Education

Asthma Management

David Corkill
Emergency Nurse Educator
MEmergN, MAdvPrac (Hth Prof Edu), BN, Dip App Sc


www.thinkasklearn.com.au



1

Asthma in Australia


- 1 in 6 children
- 1 in 8 adolescents
- 1 in 9 adults
- Affects over 2 million people
- Australian average 11%
- 14% – 16% Australian Children
- Exercise is a trigger for 80% of people with asthma



2


Types of Asthma

- **Infrequent Intermittent 75%**
- **Frequent Intermittent 20%**
- **Persistent 5%**

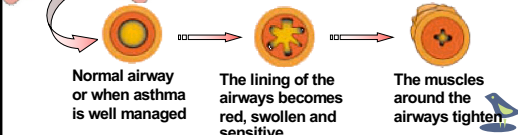


3

What is asthma?




- People with asthma have trouble getting air in and out of their lungs
- The airways in the lungs become narrow, making it difficult to breathe



Normal airway or when asthma is well managed

The lining of the airways becomes red, swollen and sensitive


The muscles around the airways tighten



4

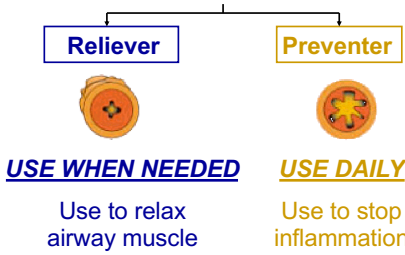
Recognizing the signs

- **Cough** - the body's attempt to open up and clear the narrowed airways
- **Shortness of breath** - difficulty in moving air in and out of the narrowed airways
- **Wheeze** - the whistling sound made as the air is pushed out through narrowed airways
- **Chest tightness** - the feeling when the muscles have tightened around the airways



5

Medications



Reliever


Preventer

USE WHEN NEEDED

USE DAILY

Use to relax airway muscle

Use to stop inflammation



6

Medication



7

Short Acting Relievers

Blue colours

Quickly relieves symptoms

– Works within 4 minutes

Often used before exercise

Safe and non-addictive

Common names:

– Airomir, Asmol, Bricanyl, Ventolin

Use in **Asthma First Aid**



8

Longer Acting Relievers

Green colours

•“Longer acting” relief of symptoms

•10 hours but peak - 1 to 2 hours

Not for Asthma First Aid



9

Preventers

Many **different** colours

Reduce frequency and severity of attacks

Taken regularly every day at home

Not for Asthma First Aid



10

Combination

Purple or red/white colour

Combined preventer and longer acting reliever

Taken regularly every day at home

Not for Asthma First Aid



11

Delivery Devices

Puffer & Spacer	
Puffer	
Accuhaler	
Turbuhaler	

Autohaler	
Nebuliser	



12

Evidence

Holding Chambers v's Nebulisers

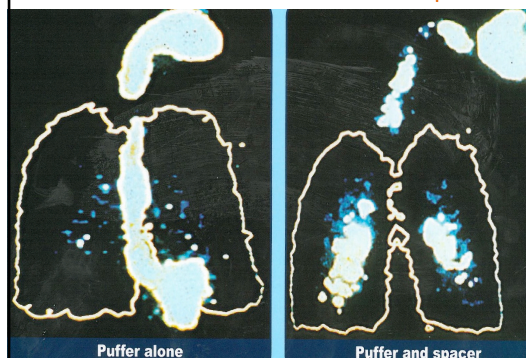
Cochrane Review 2013

- 1897 children and 729 adults in 39 trials
- LOS in ED – 33 mins vs 103 mins
- Pulse Rate – 6.3% lower
- No outcome difference



13

Medication – With and Without a Spacer



14

Assessing an asthma attack

Mild Attack

- Cough
- Soft wheeze
- Minor trouble breathing
- No problem speaking in sentences

Moderate Attack

- Persistent cough
- Loud wheeze
- Clear difficulty breathing
- Able to speak in short sentences only

Severe Attack

- (Dial 000 for an ambulance)
- Very stressed and anxious
- Gasping for breath

- Unable to speak more than a few words in one breath
- Pale and sweaty
- May have blue lips



15

DISCHARGE CRITERIA

- O2 saturation > 95% on room air – NOT IN Isolation!
- No tachypnoea
- No accessory muscle use
- Good air entry with minimal or no wheeze
- Adequate social circumstances
- Good spacer technique
- Asthma Control Pack
- Asthma Action Plan



16

ASTHMA ACTION PLANS



17

Asthma Action Plans for children

My Asthma Action Plan

Always carry your blue reliever with you. For more information on asthma call 1800 945 130

Name: _____ Doctor's Name: _____ Doctor's Signature: _____ Doctor's Phone No.: _____

Well Controlled (Green)

Asks to do normal activities. Hearing clear breath sounds. Blue reliever used less than once a week.

Worsening (Yellow)

Cough or chest tightness wakes me up. Hearing clear breath sounds less than once a week.

Severe (Red)

Hearing clear breath sounds and coughing or gasping for breath. Hearing blue reliever used more than once a week.

Other: _____

Life threatening asthma and 4 step asthma first aid plan – turn over

18

My Asthma Action Plan

When my asthma is WELL CONTROLLED

- No regular wheezing, or cough or chest tightness at night time, or waking up during the day
- Able to take part in normal physical activity without wheezing, cough or chest tightness
- Need rescue medication less than three times a week (except if it is used before exercise)
- Peak Flow* between [] and []

When my asthma is NOT TOO WORSE

- At the first sign of a cold
- Waking from sleep due to coughing, wheezing or chest tightness
- Using rescue puffer more than 2 times a week (but including before exercise)
- Peak Flow* between [] and []

When my asthma is SEVERE

- Need rescue puffer every 2 hours or more often
- Increasing wheezing, coughing, chest tightness
- Difficulty with normal activity
- Waking each night and using rescue puffer with increasing frequency or chest tightness
- Peak Flow* below []

How to recognize LIFE-THREATENING ASTHMA

Blue 999 for an ambulance under 15
Take a rescue puffer if you have any of the following danger signs:

- Waking from sleep due to coughing, wheezing, cough or chest tightness
- Using rescue puffer more than 3 times a week
- Peak Flow* below []

A serious asthma attack is also indicated if:

- symptoms getting worse quickly
- anyone shortness of breath or difficulty speaking
- you are looking frightened or panicked
- Peak Flow* below []

What should I do?

Continue my usual treatment as follows:

Rescue

Symptom Controller

Combination Medication

Always carry my rescue puffer

See my doctor to talk about my asthma getting worse

See my doctor for advice

See my doctor immediately after a serious asthma attack

Name: _____ Date: _____ Blue Peak Flow*: _____ Next Doctor's Appointment: _____

* Not recommended for children under 12 years

19

My Asthma Action Plan

When my asthma is WELL CONTROLLED

- No regular wheezing, or cough or chest tightness at night time, or waking up during the day
- Able to take part in normal physical activity without wheezing, cough or chest tightness
- Need rescue medication less than three times a week (except if it is used before exercise)
- Peak Flow* below []

When my asthma is NOT TOO WORSE

- At the first sign of a cold
- Waking from sleep due to coughing, wheezing, cough or chest tightness
- Using rescue puffer more than 2 times a week (but including before exercise)
- Peak Flow* between [] and []

When my asthma is SEVERE

- Need rescue puffer every 2 hours or more often
- Increasing wheezing, coughing, chest tightness
- Difficulty with normal activity
- Waking each night and using rescue puffer with increasing frequency or chest tightness
- Peak Flow* below []

How to recognize LIFE-THREATENING ASTHMA

Blue 999 for an ambulance under 15
Take a rescue puffer if you have any of the following danger signs:

- Waking from sleep due to coughing, wheezing, cough or chest tightness
- Using rescue puffer more than 3 times a week
- Peak Flow* below []

A serious asthma attack is also indicated if:

- symptoms getting worse quickly
- anyone shortness of breath or difficulty speaking
- you are looking frightened or panicked
- Peak Flow* below []

What should I do?

Continue my usual treatment as follows:

Rescue

Symptom Controller

Combination Medication

Always carry my rescue puffer

See my doctor to talk about my asthma getting worse

See my doctor for advice

See my doctor immediately after a serious asthma attack

Name: _____ Date: _____ Blue Peak Flow*: _____ Next Doctor's Appointment: _____

20

ASTHMA ACTION PLAN

NAME: _____ **ASTHMA CONSULTANT:** _____ **EMERGENCY CONTACT:** _____

DATE: _____ **DATE OF NEXT REVIEW:** _____

1. WHEN WELL (Controlled asthma)

2. WHEN NOT TOO WELL (Increasing symptoms)

3. WHEN VERY NOT WELL (Serious symptoms)

4. WHEN NOT WELL (Life-threatening asthma)

5. DANGER SIGNS

DIAL 999 FOR AMBULANCE

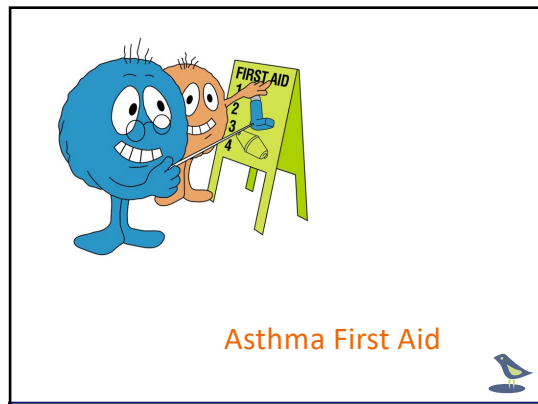
See my doctor to talk about my asthma getting worse

See my doctor for advice

See my doctor immediately after a serious asthma attack

Name: _____ Date: _____ Blue Peak Flow*: _____ Next Doctor's Appointment: _____

21



22

FIRST AID FOR ASTHMA

USE BLUEBERRY PUFFER (A SMALL VENTILATOR DEVICE)

1. Sit the person down and reassure them.

2. Give a puff of Blueberry Puffer.

3. Wait 4 minutes. Try with 100% - most people will respond. Call 999 for an ambulance if you have any trouble. If the person is having a serious attack.

4. After 4 minutes.

5. If the person is not better.

6. If the person is not better.

7. If the person is not better.

8. If the person is not better.

9. If the person is not better.

10. If the person is not better.

11. If the person is not better.

12. If the person is not better.

13. If the person is not better.

14. If the person is not better.

15. If the person is not better.

16. If the person is not better.

17. If the person is not better.

18. If the person is not better.

19. If the person is not better.

20. If the person is not better.

21. If the person is not better.

22. If the person is not better.

23. If the person is not better.

24. If the person is not better.

25. If the person is not better.

26. If the person is not better.

27. If the person is not better.

28. If the person is not better.

29. If the person is not better.

30. If the person is not better.

31. If the person is not better.

32. If the person is not better.

33. If the person is not better.

34. If the person is not better.

35. If the person is not better.

36. If the person is not better.

37. If the person is not better.

38. If the person is not better.

39. If the person is not better.

40. If the person is not better.

41. If the person is not better.

42. If the person is not better.

43. If the person is not better.

44. If the person is not better.

45. If the person is not better.

46. If the person is not better.

47. If the person is not better.

48. If the person is not better.

49. If the person is not better.

50. If the person is not better.

51. If the person is not better.

52. If the person is not better.

53. If the person is not better.

54. If the person is not better.

55. If the person is not better.

56. If the person is not better.

57. If the person is not better.

58. If the person is not better.

59. If the person is not better.

60. If the person is not better.

61. If the person is not better.

62. If the person is not better.

63. If the person is not better.

64. If the person is not better.

65. If the person is not better.

66. If the person is not better.

67. If the person is not better.

68. If the person is not better.

69. If the person is not better.

70. If the person is not better.

71. If the person is not better.

72. If the person is not better.

73. If the person is not better.

74. If the person is not better.

75. If the person is not better.

76. If the person is not better.

77. If the person is not better.

78. If the person is not better.

79. If the person is not better.

80. If the person is not better.

81. If the person is not better.

82. If the person is not better.

83. If the person is not better.

84. If the person is not better.

85. If the person is not better.

86. If the person is not better.

87. If the person is not better.

88. If the person is not better.

89. If the person is not better.

90. If the person is not better.

91. If the person is not better.

92. If the person is not better.

93. If the person is not better.

94. If the person is not better.

95. If the person is not better.

96. If the person is not better.

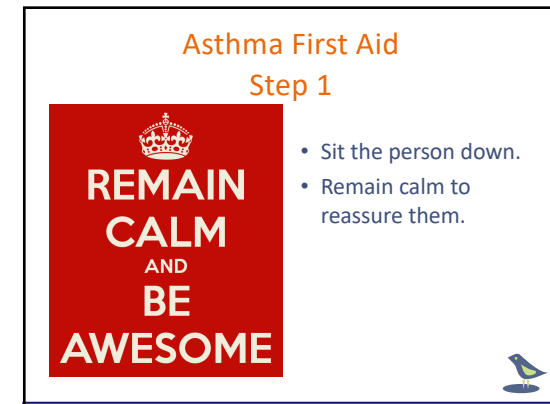
97. If the person is not better.

98. If the person is not better.

99. If the person is not better.

100. If the person is not better.

23



24

Asthma First Aid Step 2

4

- Give 4 puffs of a blue reliever, one puff at a time.
- Use a spacer.
- Ask the person to take 4 breaths from the spacer.



25



26

Asthma First Aid Step 4



- If there is little or no improvement, repeat steps 2 and 3.
- If there is still little or no improvement, call an ambulance immediately.
- Continue to repeat steps 2 and 3 while waiting for the ambulance.



27

National Asthma Council

FIRST AID FOR ASTHMA

USE BLUE/GRAY PUFFER (E.G. ASMA, VENTOLIN, SALMETEROL)

- 1** Sit the child down in a comfortable position. They can sit on your lap.
- 2** Give 4 puffs of blue/gray puffer. Hold 1 puff of spacer - or spacer - 1 breathe in and out of spacer. Repeat until 4 puffs have been given. See instructions below. Then use a blue/gray puffer with spacer.
- 3** Wait 4 minutes. Tap with index, middle, ring and little fingers. Call 999 for an ambulance if you have 4 minutes to try for a better response or if you are still not better.
- 4** After 4 minutes.
 - Worse or no better? If getting worse or worse breathing, give 4 more puffs. If still not better, give 4 more puffs. If still not better, call 999.
 - Still hard to breathe? If still hard to breathe, give 4 more puffs. If still not better, call 999.
 - Breathing normally? If still not better, call 999.

HOW TO USE A BLUE/GRAY PUFFER WITH SPACER

BEFORE USING THE SPACER:

- Check the spacer is clean.
- Check the spacer is not damaged.
- Check the spacer is not expired.
- Check the spacer is not used for more than 1 year.
- Check the spacer is not used for more than 1 year.

HOW TO USE THE SPACER:

- Hold the spacer with both hands.
- Put the puffer in the spacer.
- Put the spacer in your mouth.
- Take a deep breath in through the spacer.
- Hold the spacer for 10 seconds.
- Take a deep breath out through the spacer.
- Repeat 4 times.

When to call 999

- If you are still not better after 4 minutes.
- If you are still not better after 4 minutes.
- If you are still not better after 4 minutes.
- If you are still not better after 4 minutes.



28

Asthma Handbook



29