

GASP

Giving Asthma Support to Patients



Presented by

Jo Moorcroft NZRN PGCertNurs
14 October 2015



in association with
**waitemata
pho**



Waitemata Health
Excellence Awards
Showcasing Achievement

GASP

Giving Asthma Support to Patients



The Background

Asthma Clinic - Initial & Follow up Assessments

Produced by Wendy.

McNaughton

Authorised for use by CCL Registered Asthma Nurses: «First Name» «Surname» (No. «Number»)

Name.....	DOB.....
Address.....	Female / Male.....
GP.....	Ethnicity.....
	Date.....

ASTHMA HISTORY

Year of onset of symptoms..... Year of asthma diagnosis..... Age of asthma diagnosis.....

F/H Atopy: Y / N father... mother... brother... sister... g'parents... other...

Occupational history.....(if relevant) Drug allergies.....

Personal history of: hayfever... eczema... rhinitis... GORD...

Asthma Exacerbation in previous 12 m. circle If 'Yes', how many?

Hospital admission? Yes / No

Emergency spacer or nebuliser therapy? Yes / No

Course of Oral Steroids Yes / No

PROVOCATION

Exercise Cold air

Respiratory infection Dust

Emotions e.g. laughter, stress Work

Animals Other.....

INVESTIGATIONS

Height..... (cms) Weight..... (kgs) BMI.....

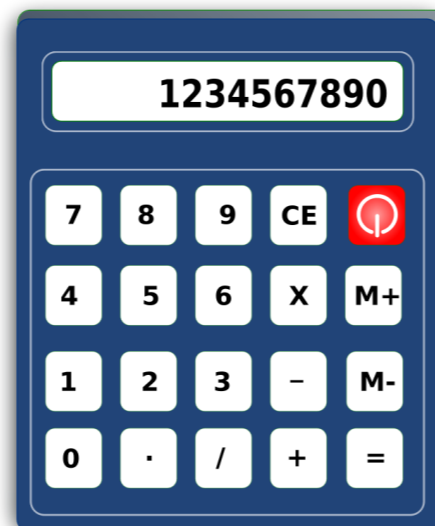
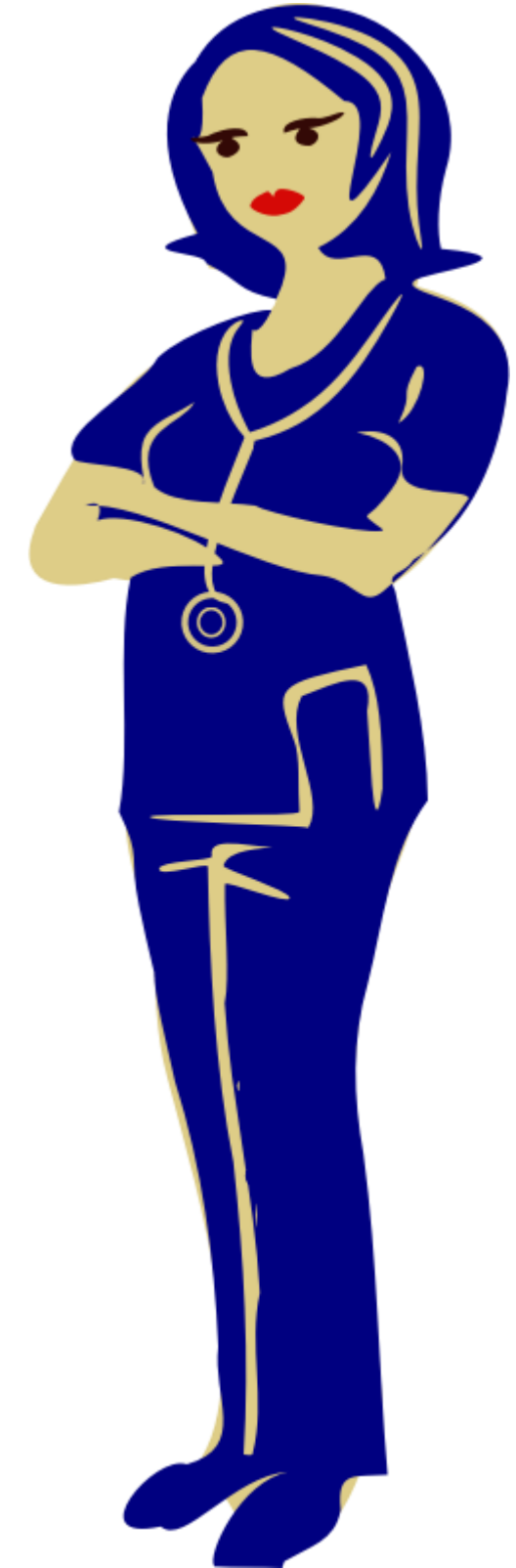
Smoking: Yes..... (If yes, how many.....) Never.....

Ex..... (If yes, pack years.....) Passive.....
(*no. cigarettes per day x yrs of smoking = 20*)

Urine: if on oral steroids Glucose..... Protein.....

PEFR =(l/m) Predicted PEFR = % Predicted = CXR (5 yrs).....

MEDICATION.....



“I wish
someone had
told me this
years ago”



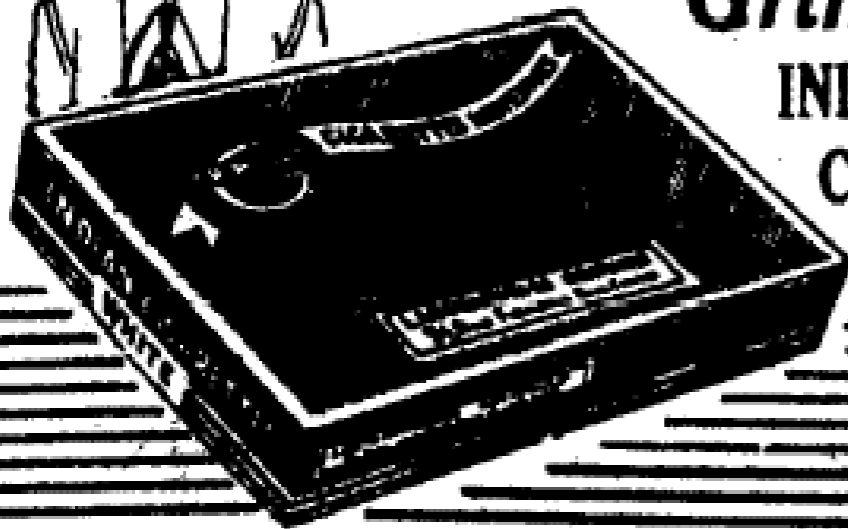
Here's a Curative
Smoke for
ASTHMA...

www.onlinepot.org



... Impregnated with
agents that bring quick relief
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offer enjoyment plus relief
this harassing complaint. —
Try a pack Today.

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IN CASES OF
ASTHMA, COUGH, BRONCHITIS
HAY-FEVER, INFLUENZA
SHORTNESS OF BREATH

Dr. Batty's



For Your Health

ASTHMA CIGARETTES

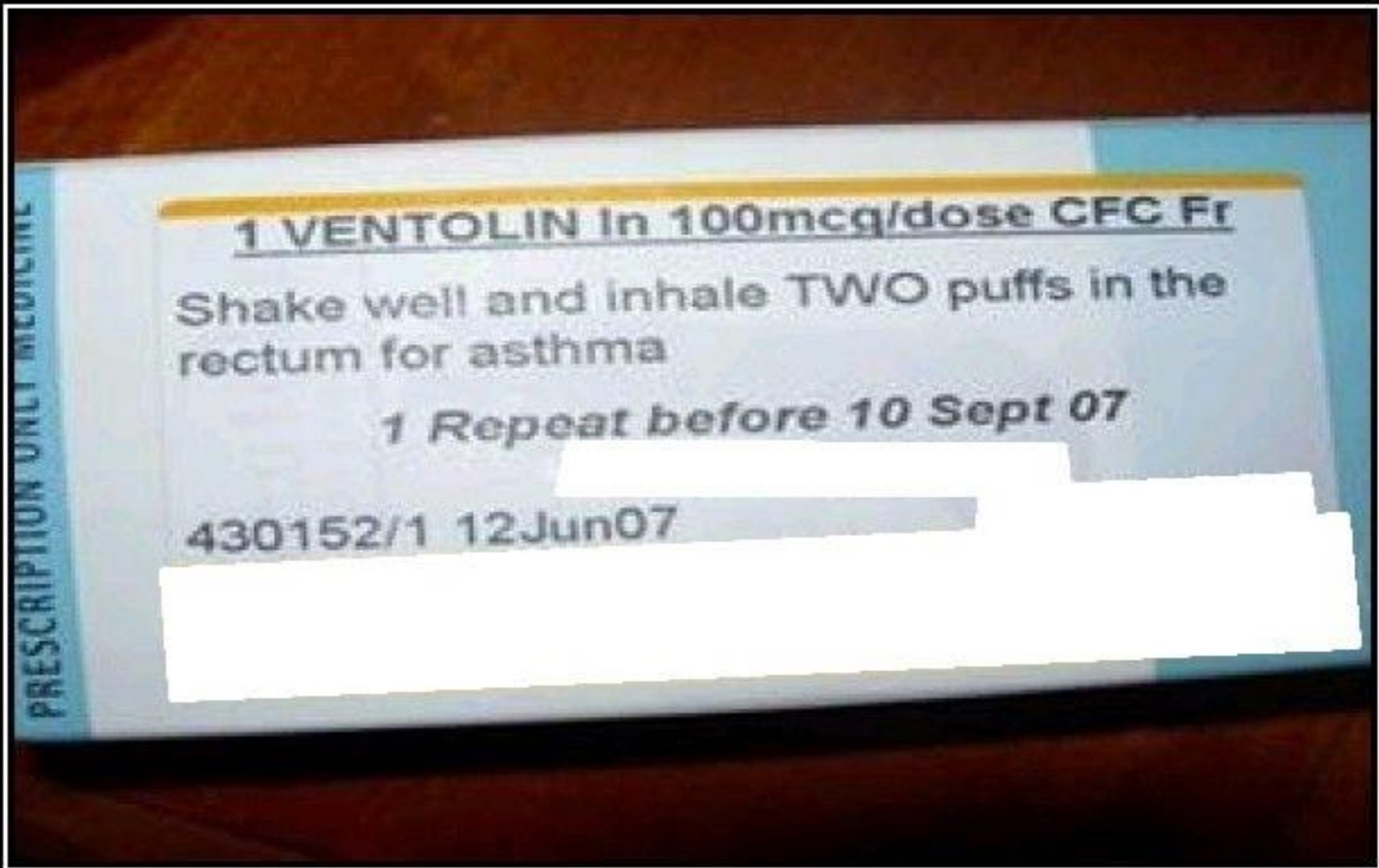
SINCE 1882

*For the temporary relief of
paroxysms of asthma*

EFFECTIVELY TREATS:

ASTHMA, HAY FEVER, FOUL BREATH
ALL DISEASES OF THE THROAT,
HEAD COLDS, CANKER SOURS
BRONCHIAL IRRITATIONS

NOT RECOMMENDED FOR CHILDREN UNDER 6.



ASTHMA MEDICATION

You're doing it wrong

Nurse led clinics

- Appropriately trained nurses produce as high quality care as primary care doctors and as good health outcomes for patients. Nurses tend to provide more health advice and achieve higher levels of patient satisfaction compared with doctors. Further research is required to determine cost savings (*Laurant, et al., 2005*)
- “...the most recent Cochrane review indicates equivalent or superior outcomes for nurse consults in primary care.”
*Practice Nurse Cost Benefit Analysis Report: 2010
Health Services Research Centre (HSRC) for MOH*

What's in it for the patient?

Provides a diagnosis

Maintain optimal asthma control (with minimum effective treatment)

Improved understanding and self-management

Less days off work, school etc.

Reduced flare ups leading to less GP or hospital visits

Increased activities

Improved quality of life

What's in it for the GP Practice

Improved funding

Improved health and QOL

Improved job satisfaction of nurses

Less emergency visits and flare-ups

Recommendations to the Practice

Asthma Screening Questions

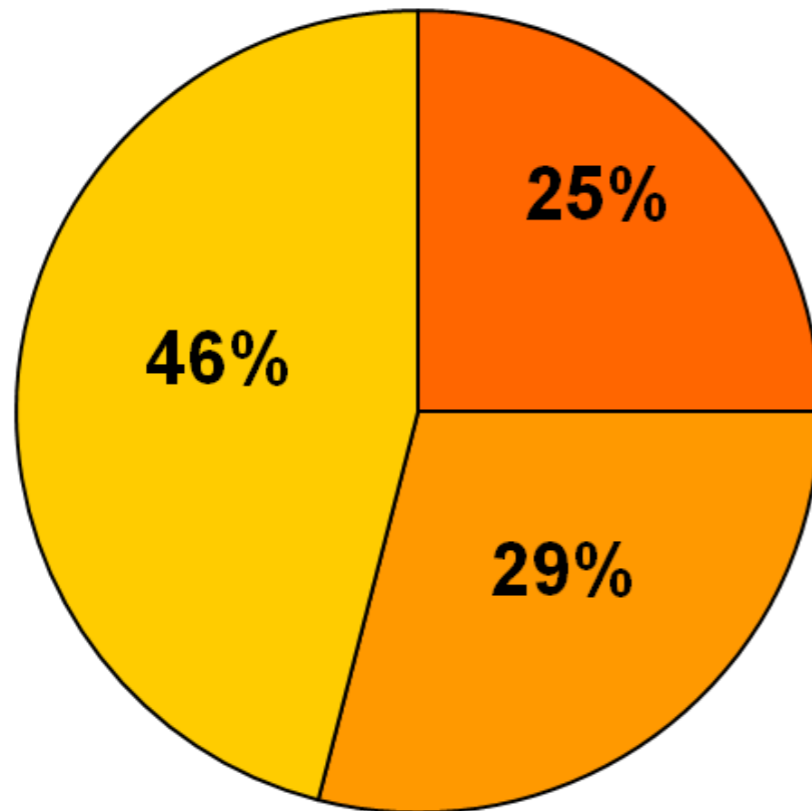
In the past 4 weeks:

- How often did your asthma prevent you getting as much done at **work, school or home?**
- How often have you had **shortness of breath?**
- How often did your asthma symptoms **wake you up at night**, or earlier than usual in the morning?
- How often have you used your **reliever medication?**
- How would you rate your **asthma control?**

Asthma Control Test

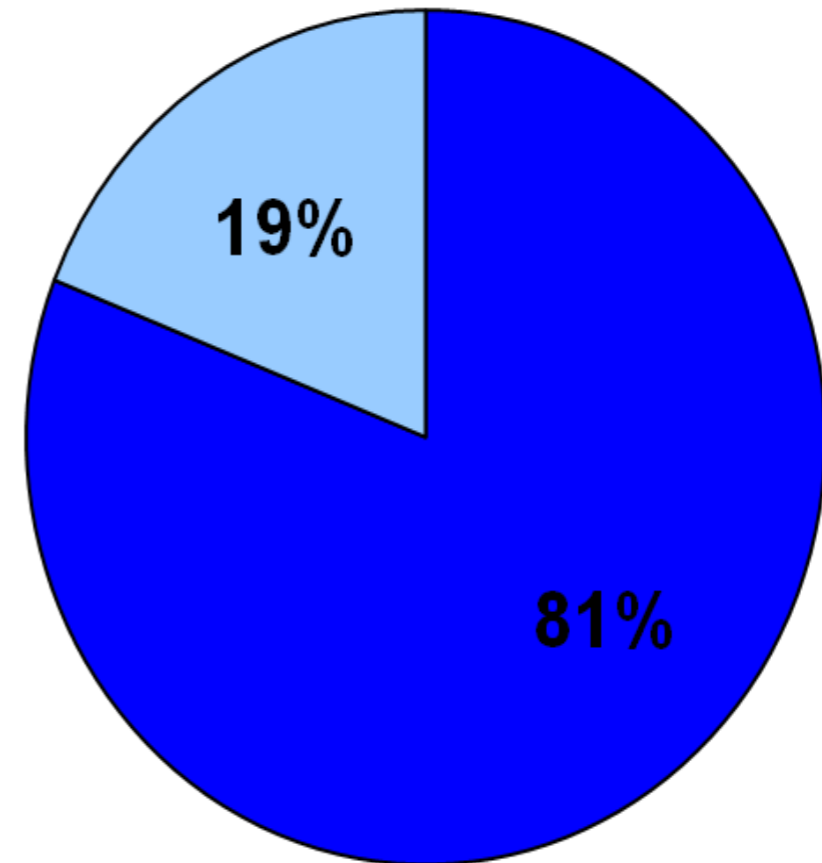
54% of Patients in NZ remained Poorly Controlled in 2007* n = 160

Asthma Control in NZ Patients



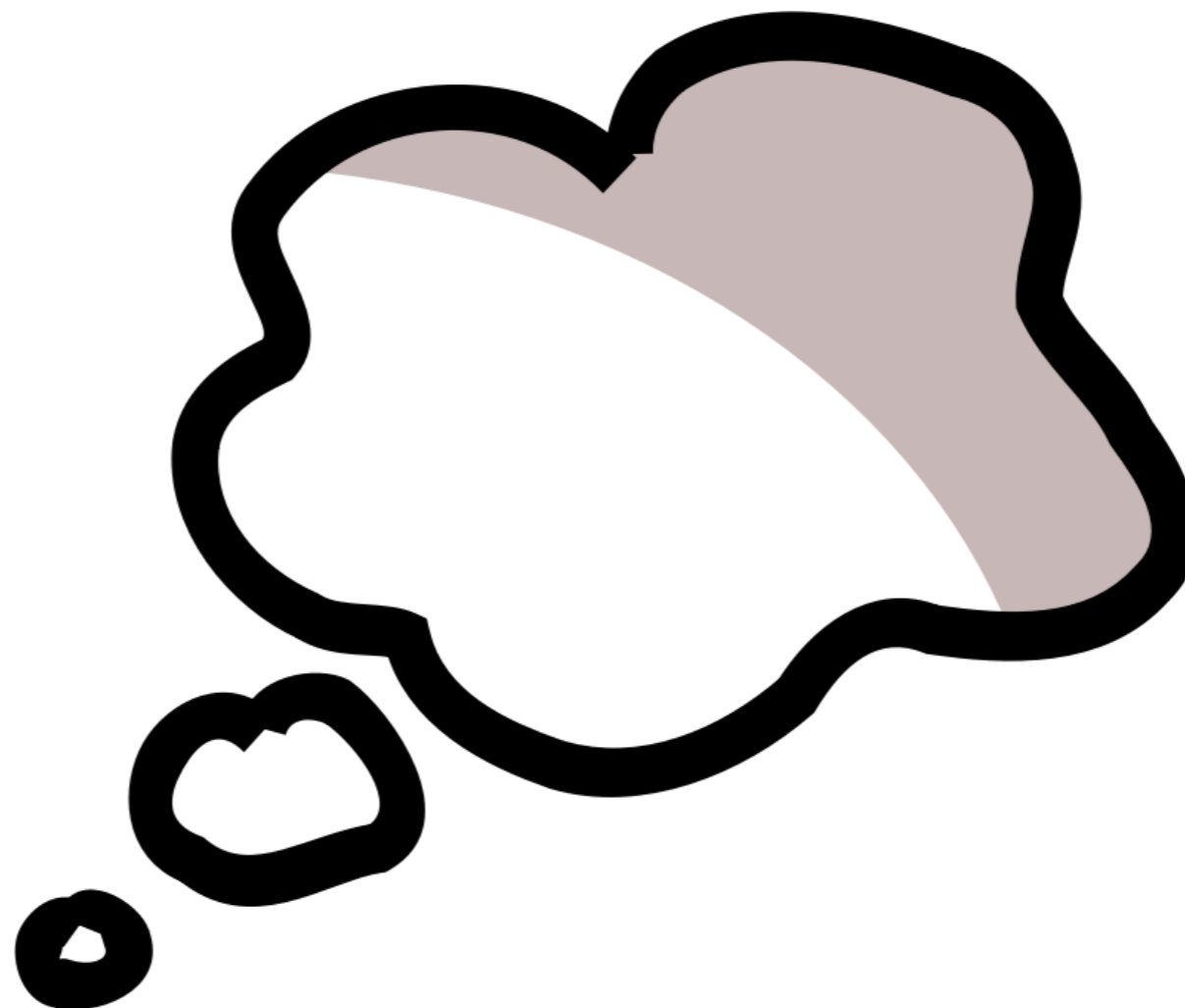
■ Asthma uncontrolled ■ Asthma not well controlled
■ Asthma well controlled

NZ patients' perceptions of their asthma control



■ Well controlled ■ Poorly controlled

What's the solution?



Peter, 26 years

- Symptom Scores – High
- Exacerbations - **10+**
- Courses OCS – **10+**
- Anxious
- Tearful

- Drugs included:-

Serevent **3 p BD**

Flixotide 250, 4 p BD

Ventolin 2 p BD (6-7p most days)

Atrovent 1 p BD

OCS for flare ups



Peter

- Symptom Scores – High
- Exacerbations - 10+
- Courses OCS – 10+
- Anxious
- Tearful



- Drugs included:-

Serevent 3 p bd

Flixotide 250, 4 p bd

Ventolin 2 p bd (6-7p most days)

Atrovent 1 p bd

OCS for flare ups

3m later.....

Seretide 125, 2 p bd

Symptom Scores – Zero

No exacerbations

No SABA use

GASP

Giving Asthma Support to Patients



The GASP Package

The GASP Package

- **The web based GASP assessment with decision support Tool**
- **Education Programme for registered practice nurses:**
 - 3-day asthma course
 - It's academic, but very practical
 - It's serious, but also a lot of fun!
- **Resources:**
 - Resources for a nurse-led clinic are provided
 - Understanding the GASP tool (user guide)
- **Asthma assessments:**
 - In the practice setting, accompanied/supported by the trainer
 - Objective tests
 - Asthma management following the NZ guidelines
 - Self management plans



Evaluation of Education Package

GASP nurses' comments:

- The most amazing course!
- I wish I'd enrolled into this course 12 years ago
- So motivated it becomes infectious
- Brilliant course, so interactive, hands on
- Very passionate about empowering patients
- Starting GASP assessments and education will be great!
- Will recommend it to our GPS!
- Awesome course, excellent platform



GASP

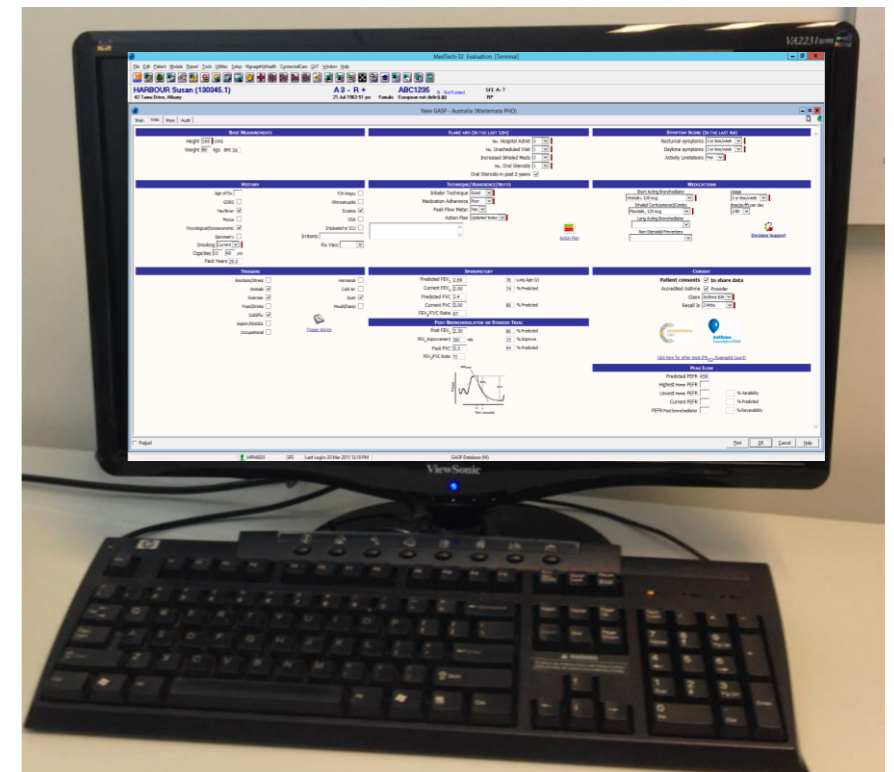
Giving Asthma Support to Patients



The GASP Tool

The GASP Tool

- **G**iving **A**sthma **S**upport to **P**atients
- One page web-based assessment tool with built-in Decision Support
- Adults and children
- Populates to and from the patients' notes
- Assists in differential diagnosis (asthma/COPD)
- Based on current NZ Guidelines
- Personalised patient forms – (saves time)
- Audit-friendly



Background

- Studies have shown that computer-based technology can be used to successfully monitor and manage various diseases
(Respiratory Care • May 2004 Vol 49 No 5)
- GASP is a unique tool that provides seamless care bridging the gap between patients, nurses and General Practitioners
- Under-treatment and management of asthma is a common problem in primary care: (50% of 720 patients undiagnosed /untreated: 76% undertreated)
Nolte H, Nepper-Christensen S, Backer V, 2006 Denmark
- GASP's key purpose is to optimise treatment for patients with asthma

Level of Asthma Symptom Control

In the past 4 weeks:

- Daytime symptoms more than twice a week
- Any night time waking due to asthma
- Reliever needed more than twice a week
- Any activity limitation due to asthma

Well Controlled: none of these

Partially controlled: 1-2 of these

Uncontrolled: 3-4 of these

Did you know ?

If good Asthma Control is ≤ 2 doses (4 puffs) **per week** of a reliever or rescue inhaler

$$\frac{4 \times 52}{200} = 1.04 \text{ inhalers}$$

then patients requiring > 2 reliever inhaler devices **per year** may have partial or poor control!

GASP

Giving Asthma Support to Patients



The GASP Assessment

Mandatory Fields

GASP - ASTHMA REVIEW

NHI No **JOSHUA**

Age **12** yrs

Gender **Male**

Ethnicity **European**

[Close \[x\]](#)

BASE MEASUREMENTS

Height **150** cms
Weight **39** kgs BMI **17**

EXACERBATIONS (IN THE LAST 12M)

No. Hospital Admit
No. Emergency Visit
No. Oral Steroids

Oral steroids in past 2 years

SYMPTOM SCORE (IN THE LAST 4W)

Nocturnal awakening
Daytime symptoms
Activity Limitations

HISTORY

Age of Dx F/H Atopy
GORD Rhinosinusitis
Hayfever Intubated or ICU
H'ventilation Eczema
Mucus OSA
Psychological Socioeconomic
Spirometry
Smoking **No** Flu Vacc
Cigs/day yrs Pack Years

TECHNIQUE/ADHERENCE/ NOTES

Inhaler Technique
Medication Adherence
Peak Flow Meter
Action Plan

MEDICATIONS

Short Acting Bronchodilator Usage
Inhaled Corticosteroid/Combo dose/puffs per day
Long Acting Bronchodilator
Non-Steroidal Preventer



TRIGGERS

Emotions/Stress Hormonal
Animals Cold Air
Exercise Dust
Food/Drinks Mould/Damp
Cold/Flu
Aspirin/NSAIDs
Occupational

Irritants

[Trigger Advice](#)

PEAK FLOW

Predicted PEFR [Action Plan](#)
Highest Home PEFR
Lowest Home PEFR % Variability
Current PEFR % Predicted
PEFR Post bronchodilator % Reversibility

[Click here for spirometry](#)
[Click here for other tests \(FE_{NO}, Eosinophil Count\)](#)

CONSENT

Patient consents to share data
Accredited Asthma Provider
Claim
Recall In



Pop-up Prompts and Drop Down Boxes

GASP - ASTHMA REVIEW

NHI No **JOSHUA**

Age **12** yrs Gender **Male** Ethnicity **European**

[Close \[x\]](#)

BASE MEASUREMENTS

Height **150** cms
Weight **39** kgs BMI **17**

EXACERBATIONS (IN THE LAST 12M)

No. Hospital Admit
No. Emergency Visit
No. Oral Steroids

Oral steroids in past 2 years

SYMPTOM SCORE (IN THE LAST 4W)

Nocturnal awakening
Daytime symptoms
Activity Limitations

- Never
- 2 or less/week
- 3 or more/week
- Every Day

HISTORY

Age of Dx F/H Atopy
GORD Rhinosinusitis
Hayfever Intubated or ICU
H'ventilation Eczema
Mucus OSA
Psychological Socioeconomic
Spirometry
Smoking **No** Flu Vacc
Cigs/day yrs Pack Years

TECHNIQUE/ADHERENCE/ NOTES

Inhaler Technique
Medication Adherence
Peak Flow Meter
Action Plan

Patients Inhaler Technique

Patient's inhaler technique.

Practitioners should regularly check patient's inhaler technique, but especially prior to initiating or increasing a drug therapy

MEDICATION

Short Acting Bronchodilator
Inhaled Corticosteroid/Combo
Long Acting Bronchodilator
Non-Steroidal Preventer

dose/puffs per day



TRIGGERS

Emotions/Stress Hormonal
Animals Cold Air
Exercise Dust
Food/Drinks Mould/Damp
Cold/Flu
Aspirin/NSAIDs
Occupational

Irritants



[Trigger Advice](#)

PEAK FLOW

Predicted PEFR **361**
Highest Home PEFR
Lowest Home PEFR % Variability
Current PEFR % Predicted
PEFR Post bronchodilator % Reversibility

[Click here for spirometry](#)
[Click here for other tests \(FE_{NO}, Eosinophil Count\)](#)

CONSENT

Patient consents to share data
Accredited Asthma Provider
Claim
Recall In



Diagnosis and Spirometry

GASP - ASTHMA REVIEW

NHI No **JOSHUA**

Age **12** yrs Gender **Male** Ethnicity **European**

[Close \[x\]](#)

BASE MEASUREMENTS

Height **150** cms
Weight **39** kgs BMI **17**

EXACERBATIONS (IN THE LAST 12M)

No. Hospital Admit
No. Emergency Visit
No. Oral Steroids

Oral steroids in past 2 years

SYMPTOM SCORE (IN THE LAST 4W)

Nocturnal awakening
Daytime symptoms
Activity Limitations

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Cigs/day Pack Years

TECHNIQUE/ADHERENCE/ NOTES

Inhaler Technique
Medication Adherence
Peak Flow Meter
Action Plan

MEDICATIONS

Short Acting Bronchodilator Usage
Inhaled Corticosteroid/Combo dose/puffs per day
Long Acting Bronchodilator
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TRIGGERS

Emotions/Stress Hormonal
Animals Cold Air
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Food/Drinks Mould/Damp
Cold/Flu
Aspirin/NSAIDs
Occupational

Irritants
 [Trigger Advice](#)

PEAK FLOW

Predicted PEFR **361** [Action Plan](#)
Highest Home PEFR
Lowest Home PEFR % Variability
Current PEFR % Predicted
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[Click here for other tests \(FE_{NO}, Eosinophil Count\)](#)

CONSENT

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Accredited Asthma Provider
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Recall In

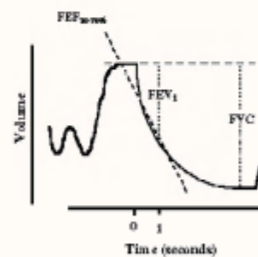


SPIROMETRY

Predicted FEV₁ **3.77** Lung Age (y)
Current FEV₁ % Predicted
Predicted FVC **4.65**
Current FVC % Predicted
FEV₁/FVC Ratio

POST BRONCHODILATOR OR STEROID TRIAL

Post FEV₁ % Predicted
FEV₁ Improvement mls % Improve
Post FVC % Predicted
FEV₁/FVC Ratio



Spirometry Test Values and Reversibility Test Findings

GASP - ASTHMA REVIEW

NHI No **JOSHUA** Age **12** yrs Gender **Male** Ethnicity **European** [Close \[x\]](#)

BASE MEASUREMENTS

Height **150** cms
Weight **39** kgs BMI **17**

EXACERBATIONS (IN THE LAST 12M)

No. Hospital Admit
No. Emergency Visit
No. Oral Steroids
Oral steroids in past 2 years

SYMPTOM SCORE (IN THE LAST 4W)

Nocturnal awakening
Daytime symptoms
Activity Limitations

HISTORY

Age of Dx F/H Atopy
GORD Rhinosinusitis
Hayfever Intubated or ICU
H'ventilation Eczema
Mucus OSA
Psychological Socioeconomic
Spirometry
Smoking **No** Flu Vacc
Cigs/day yrs Pack Years

MEDICATIONS

Usage
dose/puffs per day

http://www.chs.co.nz/? - Asthma Decision Support - Internet Explorer

FINDINGS

- Reversibility Suggests Asthma. Spirometry shows reversibility, improvement in FEV1 post bronchodilator/steroid > 12%/200ml, greater confidence if increase is > 15%/400ml



TRIGGERS

Emotions/Stress Hormonal
Animals Cold Air
Exercise Dust
Food/Drinks Mould/Damp
Cold/Flu
Aspirin/NSAIDs
Occupational

Irritants
[Trigger Advice](#)

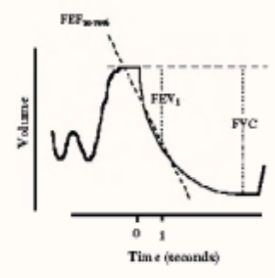
PEAK FLOW

Predicted PEFR **361**
Highest Home PEFR
Lowest Home PEFR % Variability
Current PEFR % Predicted
PEFR Post bronchodilator % Reversibility
[Click here for other tests \(FE₅₀, Eosinophil Count\)](#)



CONSENT

Patient consents to share data
Accredited Asthma Provider
Claim
Recall In



SPIROMETRY

Predicted FEV₁ **3.77** 56 Lung Age (y)
Current FEV₁ **2.8** 74 % Predicted
Predicted FVC **4.65**
Current FVC **3.21** 69 % Predicted
FEV₁/FVC Ratio **87**

POST BRONCHODILATOR OR STEROID TRIAL

Post FEV₁ **3.1** 82 % Predicted
FEV₁ Improvement **300** mls 11 % Improve
Post FVC **3.3** 71 % Predicted
FEV₁/FVC Ratio **94**

History and Triggers

NHI No **JOSHUA**

Age **12** yrs Gender **Male** Ethnicity **European**

[Close \[x\]](#)

BASE MEASUREMENTS

Height **150** cms
Weight **39** kgs BMI **17**

EXACERBATIONS (IN THE LAST 12M)

SYMPTOM SCORE (IN THE LAST 4W)

HISTORY

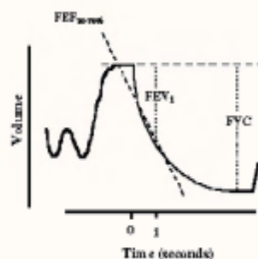
Age of Dx **2** F/H Atopy
 GORD Rhinosinusitis
 Hayfever Intubated or ICU
 H'ventilation Eczema
 Mucus OSA
 Psychological Socioeconomic
 Spirometry
 Smoking **No** Flu Vacc **No**
 Cigs/day yrs Pack Years

TRIGGERS



Emotions/Stress Hormonal
 Animals Cold Air
 Exercise Dust
 Food/Drinks Mould/Damp
 Cold/Flu
 Aspirin/NSAIDs
 Occupational

Irritants


[Trigger Advice](#)



http://www.chs.co.nz/? - Asthma Trigger Advice - Internet Explorer

Patient: **Trigger Advice**  

GENERAL GUIDELINES


- Carry your reliever
- Use preventer if prescribed
- Avoid trigger whenever possible
- Monitor peak flow and/or symptoms
- Have good baseline control of asthma

COLD AIR / TEMPERATURE **WHAT TO DO**

- Changes of temperature can affect people with asthma.
- Try to keep your home at an even temperature.
- It may help to use a thermostatically-controlled heater in the bedroom at night to keep the temperature around 20 degrees C.
- Wearing a thin, warm scarf loosely around your lower face can help warm the air you breathe.
- If you know that certain weather affects your asthma you may need to increase your medicine during that time.

COLDS AND FLU **WHAT TO DO**

- The most common trigger
- Follow your Self Management Plan by increasing preventer and/or reliever at **first sign** of worsening asthma
- Dress for the weather - wear a hat
- Avoid contact with people with a cold
- Consider an Influenza (Flu) immunisation, before winter

Usage
 dose/puffs per day

[Decision Support](#)

share data
 provider

ROID TRIAL

% Predicted
 % Improve
 % Predicted

Exacerbations, Adherence, Technique, Symptoms, Medications

GASP - ASTHMA REVIEW

NHI No **JOSHUA**

Age **12** yrs Gender **Male** Ethnicity **European**

[Close \[x\]](#)

BASE MEASUREMENTS

Height **150** cms
Weight **39** kgs BMI **17**

EXACERBATIONS (IN THE LAST 12M)

No. Hospital Admit **0**
No. Emergency Visit **0**
No. Oral Steroids **1**

Oral steroids in past 2 years

SYMPTOM SCORE (IN THE LAST 4W)

Nocturnal awakening **3 or more/week**
Daytime symptoms **3 or more/week**
Activity Limitations **Yes**

HISTORY

Age of Dx **2** F/H Atopy
GORD Rhinosinusitis
Hayfever Intubated or ICU
H'ventilation Eczema
Mucus OSA
Psychological Socioeconomic
Spirometry
Smoking **No** Flu Vacc **No**
Cigs/day yrs Pack Years

TECHNIQUE/ADHERENCE/ NOTES

Inhaler Technique **Correct**
Medication Adherence **Non-Adherent**
Peak Flow Meter **Yes**
Action Plan **Updated today**

Poor asthma control. FEV1 increased by 300mls.
Adherence to ICS poor and education given.
Action Plan updated. Re-start ICS and review 1/12

MEDICATIONS

Short Acting Bronchodilator
Ventolin, 100 mcg Usage **3 or more/week**
Inhaled Corticosteroid/Combo
Flixotide, 50 mcg dose/puffs per day **2 BD**
Long Acting Bronchodilator
Non-Steroidal Preventer



TRIGGERS

Emotions/Stress Hormonal
Animals Cold Air
Exercise Dust
Food/Drinks Mould/Damp
Cold/Flu
Aspirin/NSAIDs
Occupational
Irritants
 [Trigger Advice](#)

PEAK FLOW

Predicted PEFR **361**
Highest Home PEFR
Lowest Home PEFR % Variability
Current PEFR **340** **94** % Predicted
PEFR Post bronchodilator **370** **9** % Reversibility
[Click here for other tests \(FE_{NO}, Eosinophil Count\)](#)



[Action Plan](#)

CONSENT

Patient consents to share data
Accredited Asthma Provider
Claim
Recall In **1 Mth**

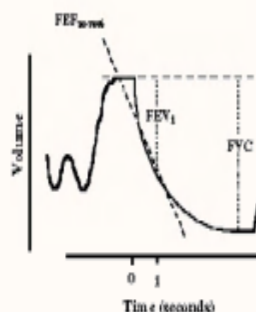


SPIROMETRY

Predicted FEV₁ **3.77** **56** Lung Age (y)
Current FEV₁ **2.8** **74** % Predicted
Predicted FVC **4.65**
Current FVC **3.21** **69** % Predicted
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POST BRONCHODILATOR OR STEROID TRIAL

Post FEV₁ **3.1** **82** % Predicted
FEV₁ Improvement **300** mls **11** % Improve
Post FVC **3.3** **71** % Predicted
FEV₁/FVC Ratio **94**



Asthma Action Plan

GASP - ASTHMA REVIEW

NHI No **JOSHUA**

Age **12** yrs Gender **Male**

Ethnicity **European**

Close [x]

http://www.chs.co.nz/? - Asthma Action Plan - Internet Explorer

PATIENT -

Best Peak Flow

WELL PF ABOVE 289 **WHAT TO DO**

Asthma is well controlled when:

- No cough or wheeze
- Play or behaviour same as other children
- Reliever inhaler used less than 3 times per week

Preventer puffs morning & night every day

Symptom Controller puffs morning & night every day

Reliever puffs as needed

Emergency Reliever

! If reliever is used regularly more than 3 times per week see your doctor
! Always use a spacer

WORSE PF BELOW 289 **WHAT TO DO**

Asthma is getting worse when

- Child is getting a cold
- Occasional cough or wheeze at night
- Cough or wheeze when child is excited or playing
- Needing reliever inhaler to control asthma symptoms

- Use your preventer / symptom controller every day
- Take reliever inhaler

! If child is not improving within 4 hours of taking reliever inhaler or symptoms worsen move to WORRIED zone
! If no better after 2-3 days see your doctor
! However, if not improving with one hour of taking reliever inhaler move to EMERGENCY zone

WORRIED PF BELOW 170 **EMERGENCY**

Asthma is worrying when child is working hard to breathe:

- Breathing is faster than usual
- "Sucking in" around ribs/throat (tip: remove clothing and LOOK at chest/tummy)
- Change in normal behaviour e.g. tired, miserable, irritable, quiet

Take 6 puffs of your emergency reliever via a spacer child to take 6 breaths after each puff

! If needed every four hours see a doctor TODAY
! If needed more often than every four hours see a doctor NOW

29/09/2015 GP Signature: _____

IN THE LAST 12M

No. Hospital Admit

No. Emergency Visit

No. Oral Steroids

Steroids in past 2 years

REFERENCE/ NOTES

Direct

Non-Adherent

dated today

LOW

[Action Plan](#)

% Variability

% Predicted

% Reversibility

[View Eosinophil Count](#)

ENTRY

Lung Age (y)

% Predicted

% Predicted

SYMPTOM SCORE (IN THE LAST 4W)

Nocturnal awakening

Daytime symptoms

Activity Limitations

MEDICATIONS

Medication	Usage
Short Acting Bronchodilator <input type="text" value="Ventolin, 100 mcg"/>	<input type="text" value="3 or more/week"/>
Inhaled Corticosteroid/Combo <input type="text" value="Flixotide, 50 mcg"/>	dose/puffs per day <input type="text" value="2 BD"/>
Long Acting Bronchodilator <input type="text"/>	
Non-Steroidal Preventer <input type="text"/>	

[Decision Support](#)

CONSENT

Patient consents to share data

Accredited Asthma Provider

Claim

Recall In

POST BRONCHODILATOR OR STEROID TRIAL

Post FEV ₁	<input type="text" value="3.1"/>	<input type="text" value="82"/> % Predicted
FEV ₁ Improvement	<input type="text" value="300"/> mls	<input type="text" value="11"/> % Improve
Post FVC	<input type="text" value="3.3"/>	<input type="text" value="71"/> % Predicted
FEV ₁ /FVC Ratio	<input type="text" value="94"/>	

Decision Support – Summary and Analysis

NHI No **JOSHUA**

BASE

Height cms
Weight kgs BMI

Age of Dx

GORD

Hayfever

H'ventilation

Mucus

Psychological

Spirometry

Smoking

Cigs/day yrs

Emotions/Stress

Animals

Exercise

Food/Drinks

Cold/Flu

Aspirin/NSAIDs

Occupational

http://www.chs.co.nz/? - Asthma Decision Support - Internet Explorer

Name of Patient Asthma Decision Support Print

(For medical provider use only)

ASTHMA MEDICAL MANAGEMENT GUIDELINES

ALERT: Patient is considered high risk

CONTROL CHARACTERISTIC

- Daily Dosage 200 µg fluticasone / day (400 µg BDP equivalent)
- Daytime symptoms- **More than twice/week**
- Limitations of activities - **Yes**
- Nocturnal symptoms/awakening- **Awakening**
- Need for reliever/rescue treatment - **More than twice/week**
- Lung function - Normal
- Exacerbations - **One or more/year**

SUMMARY

- PEFR > 80% predicted
- Reversibility, reversible airflow obstruction, 12%/200ml or greater improvement in FEV1, 15 minutes after 400 µg Salbutamol is achieved.
- Weight management advice (BMI:underweight);
- Assess eligibility for Care Plus

FINDINGS

- Reversibility Suggests Asthma. Spirometry shows reversibility, improvement in FEV1 post bronchodilator/steroid > 12%/200ml, greater confidence if increase is > 15%/400ml

ASTHMA SYMPTOM CONTROL

- Poor control** of asthma, review recommendations, three to four uncontrolled characteristics present

RISK FACTOR FOR EXACERBATIONS

- Poor Control of Asthma**
- Inadequate ICS** (not prescribed ICS, poor adherence, poor inhaler technique)
- ≥1 **severe exacerbation** in last 12 months (GINA 2014)

RISK FACTOR FOR DEVELOPING FIXED AIRFLOW LIMITATIONS

- Lack of ICS** treatment

[Close \[x\]](#)

SYMPTOM SCORE (IN THE LAST 4W)


Nocturnal awakening

Daytime symptoms

Activity Limitations

MEDICATIONS

Short Acting Bronchodilator	Usage
<input type="text" value="Ventolin, 100 mcg"/>	<input type="text" value="3 or more/week"/>
Inhaled Corticosteroid/Combo	dose/puffs per day
<input type="text" value="Flixotide, 50 mcg"/>	<input type="text" value="2 BD"/>
Long Acting Bronchodilator	
<input type="text" value=""/>	
Non-Steroidal Preventer	
<input type="text" value=""/>	




CONSENT

Patient consents to share data

Accredited Asthma Provider

Claim

Recall In



POST BRONCHODILATOR OR STEROID TRIAL

Post FEV ₁	<input type="text" value="3.1"/>	<input type="text" value="82"/> % Predicted
FEV ₁ Improvement	<input type="text" value="300"/> mls	<input type="text" value="11"/> % Improve
Post FVC	<input type="text" value="3.3"/>	<input type="text" value="71"/> % Predicted
FEV ₁ /FVC Ratio	<input type="text" value="94"/>	

Decision Support - Advice

NHI No **JOSHUA**

http://www.chs.co.nz/? - Asthma Decision Support - Internet Explorer

Close [x]

BASE

Height cms

Weight kgs BMI

Age of Dx

GORD

Hayfever

H'ventilation

Mucus

Psychological

Spirometry

Smoking

Cigs/day yrs

Emotions/Stress

Animals

Exercise

Food/Drinks

Cold/Flu

Aspirin/NSAIDs

Occupational

ADVICE

- Ensure patient has sufficient medication supply
- Educate patient on adherence to treatment** regime and understanding of self-management plan **before** initiating a new drug therapy (BTS/SIGN 2012 4.)
- Combination inhalers** are recommended to guarantee that the LABA is not taken without an ICS and to improve inhaler adherence (BTS/SIGN 2014 6.3.4). Special authority applies for Symbicort.
- Any **exacerbation** should prompt review of maintenance treatment to ensure that it is adequate.
- For most patients, exercise-induced asthma is an expression of poorly controlled asthma and regular treatment including inhaled steroids should be reviewed. (BTS/SIGN 2014 6.7.2).
- Good asthma control is associated with little or no need for a SABA (BTS/SIGN 2014 6.1.1)
- Consider adding **Long-Acting B₂ Agonists**. The first choice as add-on therapy to inhaled steroids in adults and children (5+ years) is an inhaled long-acting B₂ agonist, which should be considered before going above a dose of 400 µg BDP or equivalent/day in children and in adults taking ICS doses of 200-800 µg BDP or equivalent/day (BTS/SIGN 2014 2.3.2)
 - Use a fixed dose regimen, suitable for long term regular twice daily treatment.
 - LABA should always be considered if doses of ICS greater than 800 µg/day (or equivalent) are required
- Many patients will benefit more from add-on therapy than from increasing ICS above doses as low as 200 µg BDP equivalent/day (BTS/SIGN 2014 6.3.1)
- Consider **titrating inhaled corticosteroids** up to 500 µg/day Fluticasone/Flixotide, up to 400 µg/day Beclomethasone/QVAR, up to 800 µg/day Budesonide/Pulmicort or Beclomethasone/Beclazone for **adults**.
- In children 5-12 yrs, pMDI+ spacer is as effective as any DPI (BTS/SIGN 2014 7.2.2)
- Atopy** - Atopic dermatitis and atopic rhinitis are amongst the factors most strongly associated with asthma persisting into the teenage years (BTS/SIGN 2014 10.4.1)
- Influenza vaccine is recommended to be given annually.

RESEARCH

- A pMDI + spacer is at least as good as a nebuliser at treating mild and moderate asthma attacks in children and adults. (BTS/SIGN 2014 7.2.1)

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SYMPTOM SCORE (IN THE LAST 4W)

Nocturnal awakening

Daytime symptoms

Activity Limitations

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Short Acting Bronchodilator

Ventolin, 100 mcg

Inhaled Corticosteroid/Combo

Flixotide, 50 mcg

Long Acting Bronchodilator

Non-Steroidal Preventer

Usage

3 or more/week

dose/puffs per day

2 BD



CONSENT

Patient consents to share data

Accredited Asthma Provider

Claim

Recall In



POST BRONCHODILATOR OR STEROID TRIAL

Post FEV₁ % Predicted
 FEV₁ Improvement mls % Improve
 Post FVC % Predicted
 FEV₁/FVC Ratio



HHCM - ASTHMA CLAIMS 23.11.07 - 27.04.09.xls [Compatibility Mode] - Microsoft Excel

	A	B	C	D	AE	AF	AG	AH	AI
1	Claim ID	NO.	Patient ID	NHI	Exacerbation hospital admit	Exacerbation emergency visit	Exacerbation oral steroid	Inhaler technique	Medical concordance
551	21322	239a	206695	FMC3681	Yes	Yes	Yes	Good	Good
552	24727	239b	206695	FMC3681	no	no	no	Good	Good
553	28074	240a	206828	BHA2304	no	no	no	Poor	Poor
554	30079	240b	206828	BHA2304	no	no	no	Good	Good
555	33443	241a	206951	SMY9816	0	3	3	Good	Good
556	35562	241b	206951	SMY9816	0	0	0	Good	Poor
557	33903	242a	206965	TBE7520	0	0	1	Good	Good
558	35038	242b	206965	TBE7520	0	0	0	Good	Good
559	34973	243a	207210	SRQ4428	0	1	1	Medium	Good
560	36058	243b	207210	SRQ4428	0	0	1	Good	Good
561	37273	243c	207210	SRQ4428	0	1	1	Good	Good
562	37705	244a	210467	BMZ3401	7	2	1	Good	Medium
563	43817	244b	210467	BMZ3401	0	0	0	Good	Good
564	35264	245a	215075	DDW7835	0	0	1	Medium	Medium
565	37325	245b	215075	DDW7835	0	0	0	Good	Good
566	35521	246a	216542	SZE2443	0	4	3	Medium	Good
567	36399	246b	216542	SZE2443	0	4	3	Good	Good
568									
569									
570			246 total		No. hosp. adm.	No. exacerbations.	No. OS courses		
571					1st visit - 24	1st visit - 129	1st visit - 114		
572					2nd visit - 8	2nd visit - 55	2nd visit - 59		
573									
574					66%	57%	48%		
575									
576									

Ready | Count: 565 | 100% | 3:02 p.m.

GASP

Giving Asthma Support to Patients



The GASP AUDIT

GASP Audit *(NIWI, 2011)*

Measurable Clinical Outcomes

Methodology

Study design: Cohort study (observational)

761 patients aged 5-64 yrs

Completed GASP assessments between Nov 2008–April 2011 (2.6 yrs)

All GASP assessments conducted by accredited GASP Nurses

Comparisons were made between first and last GASP assessment

Mean time between first and last assessments was 260 days

(Journal of Primary Health Care - 2014)

F. Ram & W. McNaughton

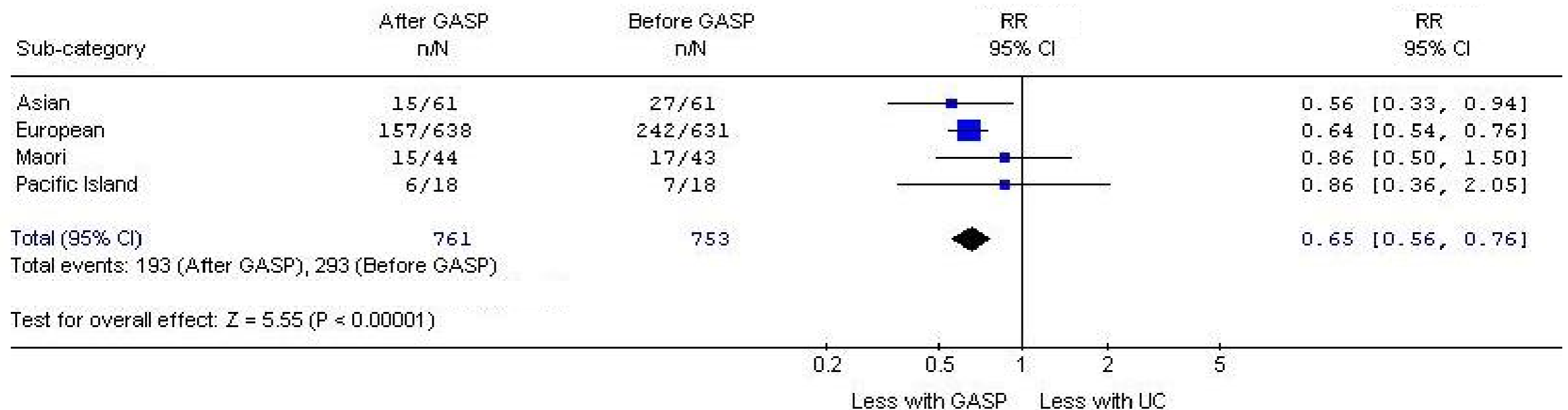
GASP Audit - outcome 2011 *(NIWI, 2011)*

Audit 2.6 years	Nov. 2008 – May 2012 Reduced %	n=761
Exacerbations	35%	(RR 0.65; 95% CI 0.56 to 0.76, NNT = 7)
Hospital admissions	33%	(RR 0.67; 95% CI 0.44 to 1.00, NNT = 50)
ED Presentations	37%	(RR 0.63; 95%CI 0.51 to 0.78, NNT = 10)
Course oral corticosteroids	34%	(RR 0.66; 95% CI 0.56 to 0.78, NNT = 9)
Use of SABA - Never	Increased by 73%	(RR 1.73; 95% CI 1.49 to 2.01, NNT = 6)
“ Every day	52%	
“ >2 puffs /week	47%	(RR 0.53; 95% CI 0.43 to 69, NNT = 11)
<i>(Journal of Primary Health Care - 2014)</i>		
<i>F. Ram & W. McNaughton</i>		

Asthma Exacerbations

- Reduced of 35% (95%CI: 24 to 44)

Journal of Primary Health Care – 2014
F. Ram & W. McNaughton

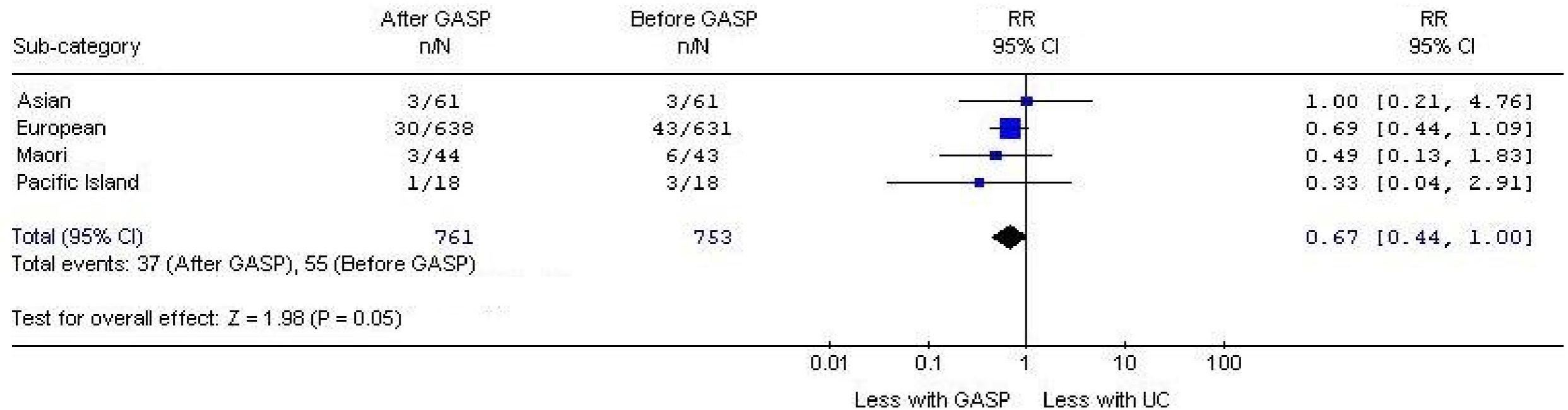


UC = usual care and no GASP assessments
 CI = confidence Interval

Hospital Admissions

- Reduced by 33% (95%CI: 0 to 56)

Journal of Primary Health Care – 2014
F. Ram & W. McNaughton



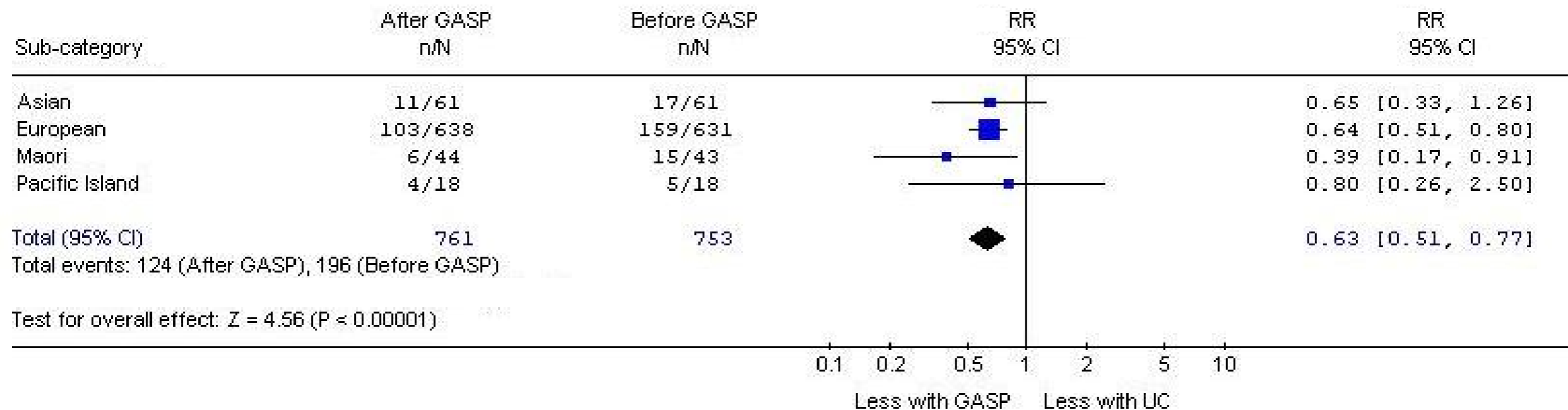
UC = usual care and no GASP assessments
 CI = confidence Interval

ED Presentations

- Reduced by 37% (95%CI: 23 to 49)

Journal of Primary Health Care – 2014

F. Ram & W. McNaughton



UC = usual care and no GASP assessments

CI = confidence Interval

GASP Audit *(NIWI, 2011)*

Conclusions

Evidence from this study suggests that the GASP tool offers significant health benefits to patients with asthma.

Findings from this study strongly support the use of the GASP tool in primary care.

These promising findings warrants a randomised controlled trial in the primary care setting to further confirm the effectiveness of the GASP tool.

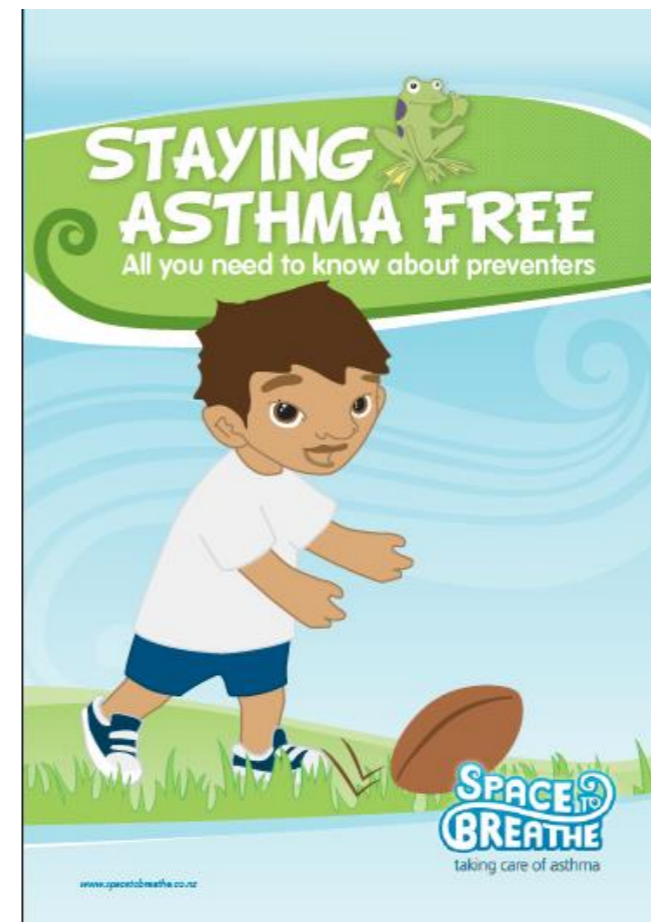
(Journal of Primary Health Care - 2014)

F. Ram & W. McNaughton

He Tapu Te Hā: Space to Breathe Trial



SPACE TO BREATHE
taking care of asthma



Evaluation

Parent's comments after completing the 'Space to Breathe' study:

'I feel this information should be shared with others and I wondered why my doctor hadn't already told me' - *Emma*

'Words cannot express the relief of worry and anxiety that this programme has brought to this family – Thank you' – *Adam*

'I've learnt how to control all 4 of my kids' asthma, as opposed to waiting until it's very bad and taking them to hospital ... I haven't even needed to take them to the doctor's' - *Maria Anne*

Evaluation continued

‘This study has changed my daughter’s life for the better’ – *Mark*

‘Thank you so very much. From a mother who felt like she wasn’t finding answers and pulling her hair out at night, my child is sleeping 100% better’ – *Jo*

‘It has made a huge difference to his (and our) quality of life’
- Natasha

GASP

Giving Asthma Support to Patients



GASP and Me

The GASP TOOL has...

- Enhanced my knowledge
- Given me confidence
- Efficiency
- Legitimacy with patient
- Support of doctors
- Effective nurse-led clinic
- Income

GASP

Giving Asthma Support to Patients



**Together we can change the future
of asthma care in New Zealand.**



References

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THANK YOU. ENQUIRIES TO:

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GASP

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