NWL Improving Inhaler Prescribing Webinar

- Wednesday 15th February 2023, 1:00-2:00pm

North West London Integrated Care System

Agenda

Chair

- Dr Sarah Elkin: Consultant and NWL Clinical Lead Respiratory

Presenters

- Dr Vasu Siva: GP Hillview Surgery
- Darush Attar-Zadeh: Clinical Fellow (Respiratory Pharmacist), IP

Today we will aim to:

- Improve inhaler prescribing
- Raise awareness of the 7 steps to good inhaler technique (adult & children differences)
- Cover case examples to support PCNs and Practices
- Q&A session

Disclosure slide

Darush Attar-Zadeh

- Treating Tobacco Dependency, Inhaler Technique, Medicines Optimisation in Respiratory Care

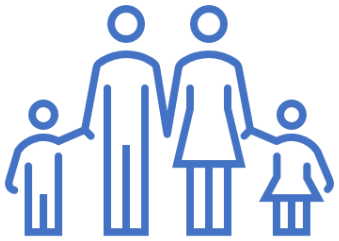
- Honoria from Astra Zeneca, Boehringer Ingelheim, Chiesi, Cipla, Glenmark, GSK, J& J, Novartis, Orion, Pfizer, Reckitt, Teva, Trudell

Dr Sarah Elkin

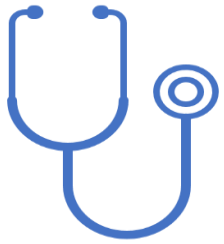
- Honoraria from AZ and Chiesi

1. Background and Context

Asthma in the UK…

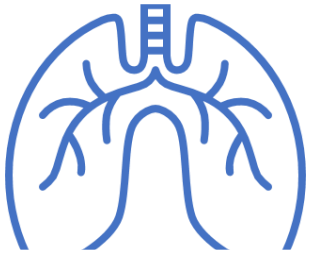


Affects over 8 million people, or approximately 12% of the population[1]

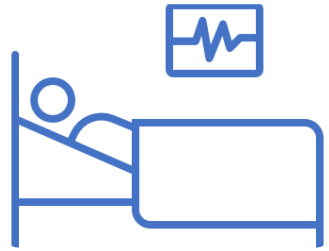


160,000 people diagnosed each year[1]

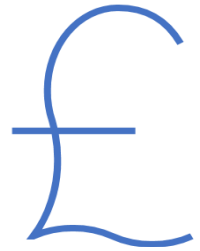
12 700 deaths in the past decade[2]



5.4 million people are receiving asthma treatment[1]



2-3% of primary care consultations, 60,000 hospital admissions, and 200,000 bed days per year[1]



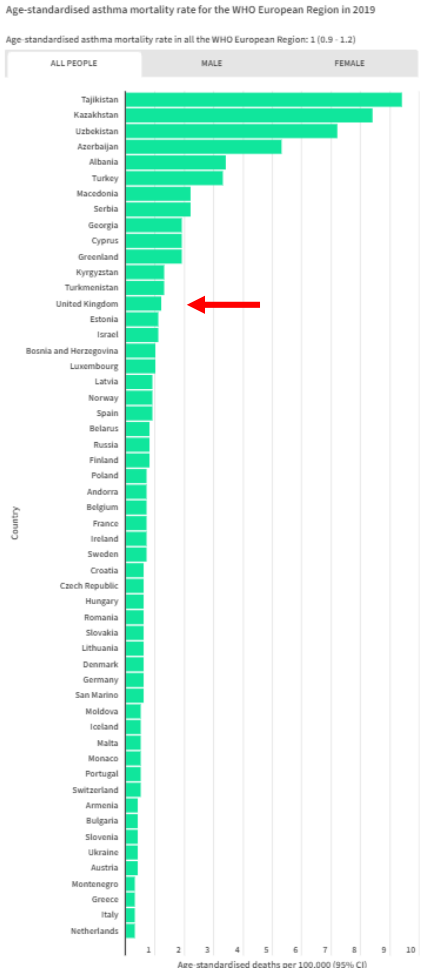
Asthma costs the UK health service at least £1.1 billion each year[3]

The incidence of asthma is higher in **children** than in **adults**. in early childhood, asthma is more common in boys than in girls, but by adulthood, the sex ratio is reversed.

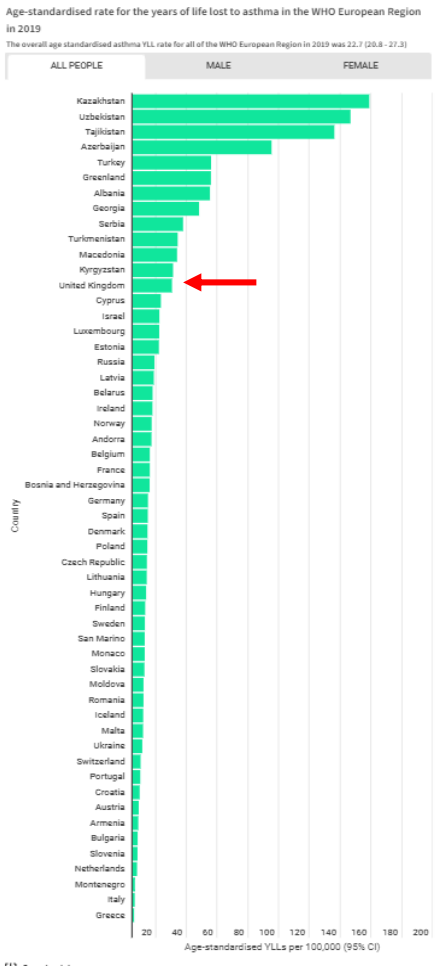
[1]https://cks.nice.org.uk/topics/asthma/background-information/prevalence/
[2]Asthma deaths rise 33% in past decade in England and Wales | The BMJ
[3]Study estimates that asthma care costs at least £1.1bn per year | Asthma UK

IRC asthma data

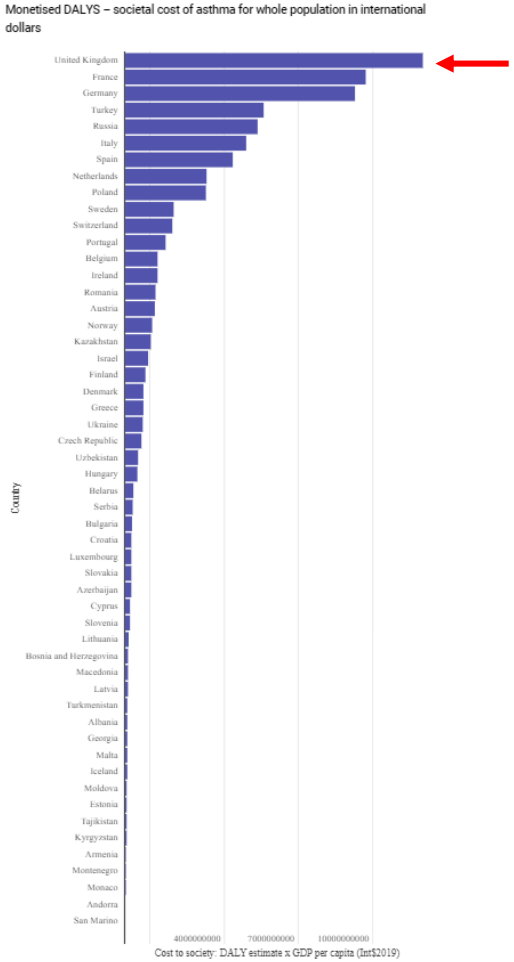
Mortality rate



Years of life lost due to asthma



Monetised DALYs



DALYs: Disability-adjusted life years

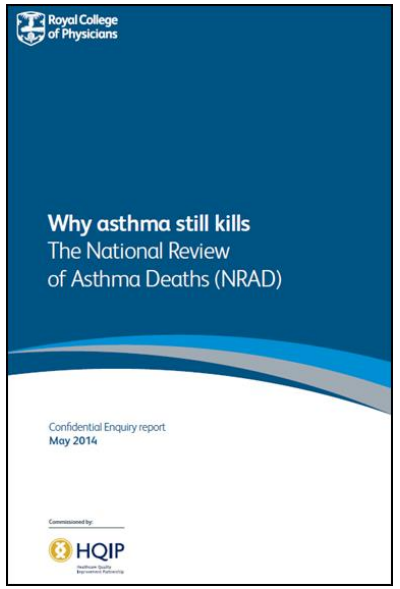
https://international-respiratory-coalition.org/diseases/asthma/

UK asthma care needs to improve

Data for 195 deaths were analysed. The key findings were:

- Excessive prescribing of rescue therapy
- Under-prescribing of preventer inhalers

➢ Many of the deaths were potentially preventable




PAPERS AND SHORT REPORTS

Controlled investigation of deaths from asthma in hospitals in the North East Thames region

J EASON, H L J MARKOWE

Controlled investigation of deaths from asthma in hospitals in the NE Thames region. BMJ May 1987

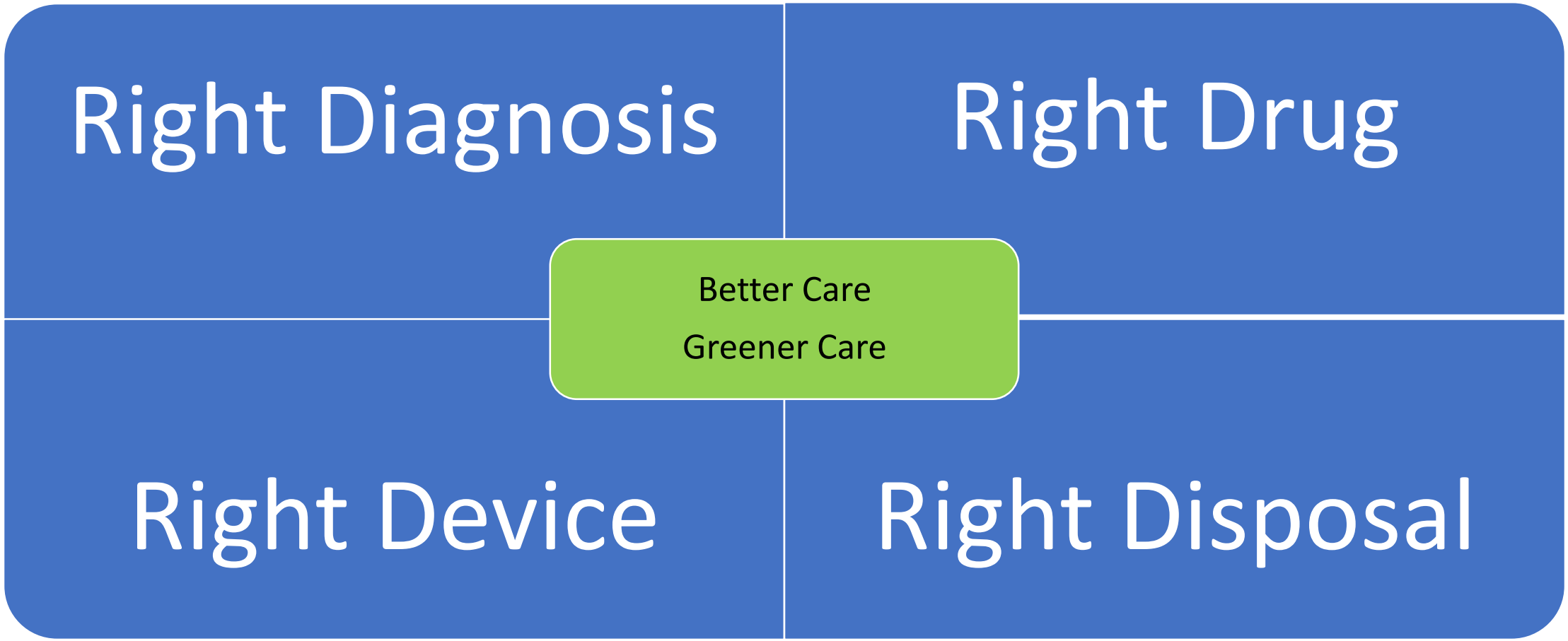
"…Most of the hospital deaths (19/35) were considered not to have been preventable"

https://www.rcplondon.ac.uk/sites/default/files/why-asthma-still-kills-full-report.pdf

https://www.bmj.com/content/294/6582/1255

Greener Respiratory Care

Good for the **patient** & Good for the **planet**



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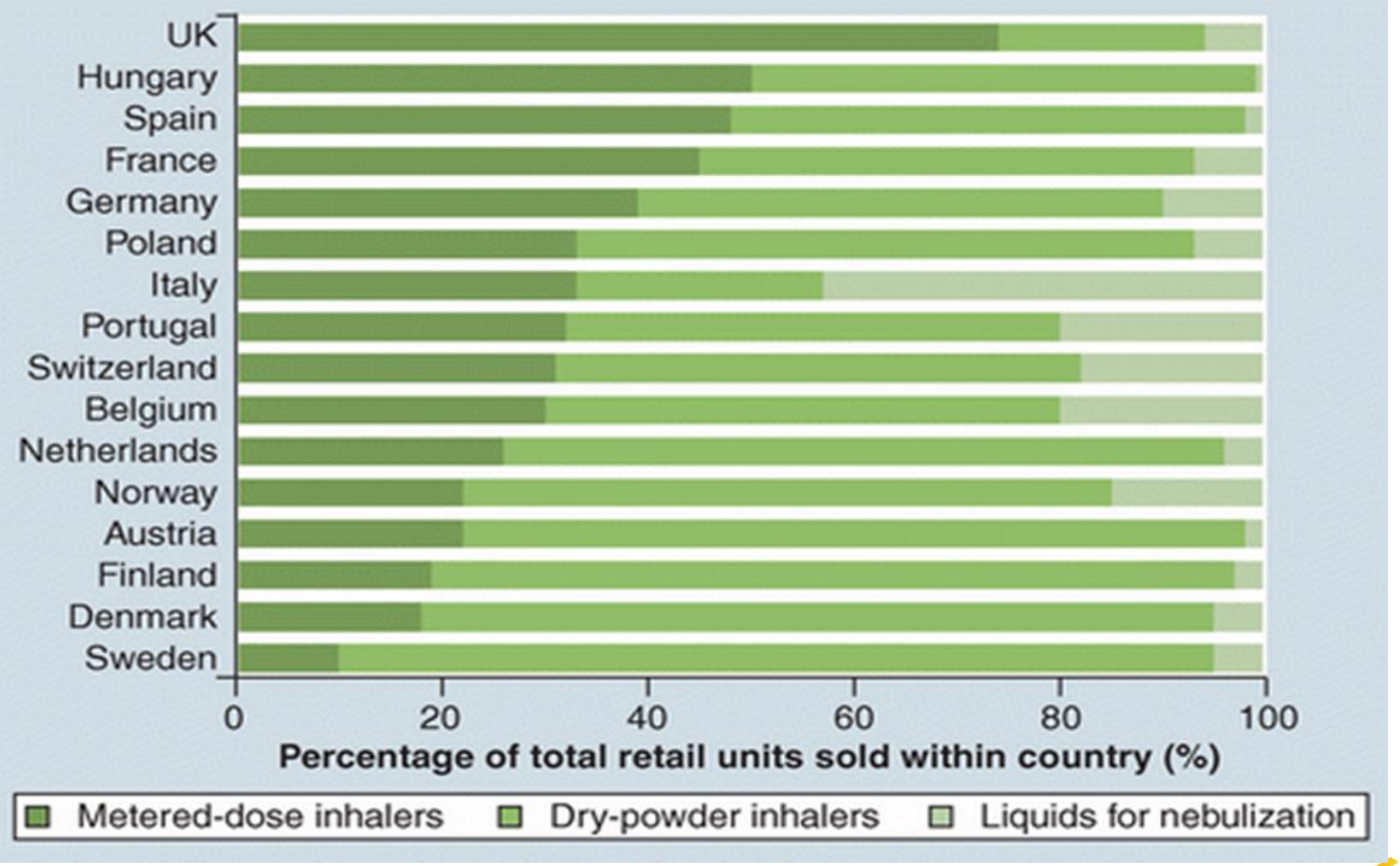
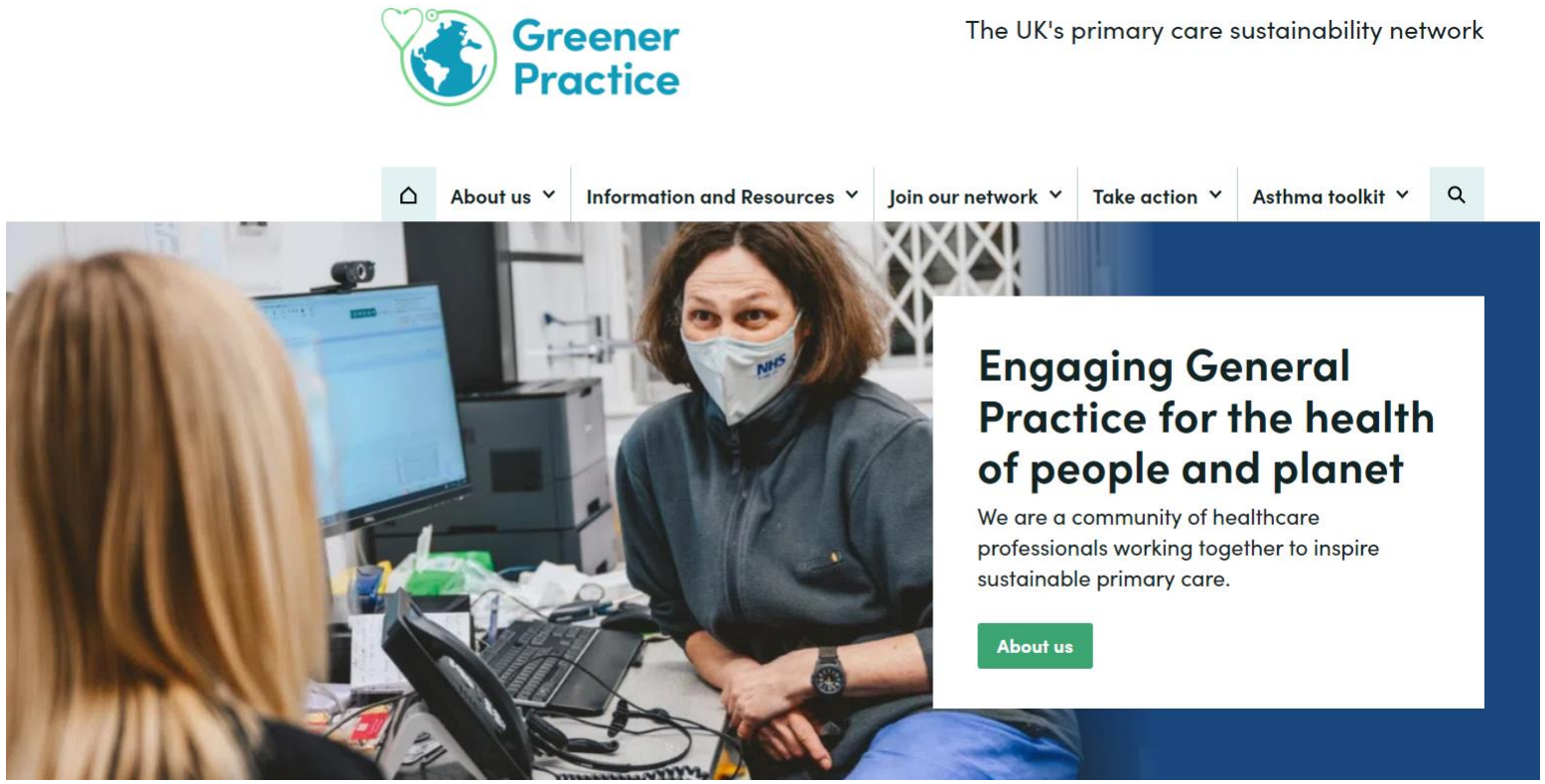
How do UK device choices compare?



Addressing SABA reliance



https://www.greenerpractice.co.uk/

SABA inhaler use is a key contributor to the total inhaler carbon footprint in the UK

In addition to improving asthma outcomes, eliminating SABA over-reliance could support the NHS to address their sustainability goals[1-3]

70%

of the ***total carbon footprint*** of inhaler devices in the UK is represented by SABAs[4]

~3x (or more)

SABA GHG emissions observed than in other large European countries[4]

83%

In asthma:
of SABAs prescribed go to patients using ≥3 inhalers/year[4]*

~28kg‡ eCO2 per pMDI canister[5]

>250,000 tonnes
eCO2 per year[4]

>100 million†
average car trips in an average diesel car[6,7]

*Over-reliance is defined as ≥3 inhalers/year (pMDI and DPI). This figure is extracted from the SABINA UK study[8], and extrapolated to the UK adult asthma population; ‡ Janson et al, 2020[5] quotes 94% of SABAs prescribed are pMDIs. Calculation assumes that 100% of SABAs prescribed are pMDIs; † calculated on the basis that an average diesel car emits 0.27901 kg CO2e per mile and that the length of an average car trip is 8.4 miles; SABA – short acting β2-agonist; GHG – greenhouse gas

1. National Health Service (NHS). The NHS Long Term Plan, January 2019. Available from https://www.longtermplan.nhs.uk/publication/nhs-long-term-plan/; 2. National Health Service (NHS). Delivering a 'Net Zero' National Health Service. October 2020. Available from https://www.england.nhs.uk/greenernhs/publication/delivering-a-net-zero-national-health-service/; 3. HM Government. Life Sciences Vision. 2021. Available from https://www.gov.uk/government/publications/life-sciences-vision; 4. Wilkinson, AJK et al. BTS Oral Abstract No: S26. Available from http://dx.doi.org/10.1136/thorax-2020-BTSabstracts.32 (Accessed July 2021); 5. Janson, C et al. Thorax 2020; 75: 82-84; 6. UK Government GHG Conversion Factors for Company Reporting v1.3. Available from https://www.gov.uk/government/publications/greenhouse-gas-

Classification: Official

Publication approval reference: B1357

Network Contract Directed Enhanced Service

Contract specification 2022/23 – PCN Requirements and Entitlements

March 2022

RESP-01	Percentage of patients on the QOF Asthma Register who received three or more inhaled corticosteroid (ICS, inclusive of ICS/LABA) prescriptions over the previous 12 months	Of the denominator, the number who received three or more inhaled corticosteroid (ICS, inclusive of ICS/LABA) prescriptions over the previous 12 months	Number of patients on the QOF Asthma Register	Indicator denominator	Standard Quantitative; 31; Upwards; 71% (LT) / 90% (UT); GPES
RESP-02	Percentage of patients on the QOF Asthma Register who received six or more Short Acting Beta-2 Agonist (SABA) inhaler prescriptions over the previous 12 months	Of the denominator, the number who received 6 or more Short Acting Beta-2 Agonist (SABA) inhaler prescriptions in the previous 12 months	Number of patients on the QOF Asthma Register	Indicator denominator	Standard Quantitative; 22; Downwards; 25% (LT) / 15% (UT); GPES

https://www.england.nhs.uk/wp-content/uploads/2022/03/B1357-Network-Contract-Directed-Enhanced-Service-contract-specification-2022-23-primary-care-network-requireme.pdf

North West London Integrated Care System

Environmental impact of inhalers - average carbon footprint per salbutamol inhaler

NHS North West London

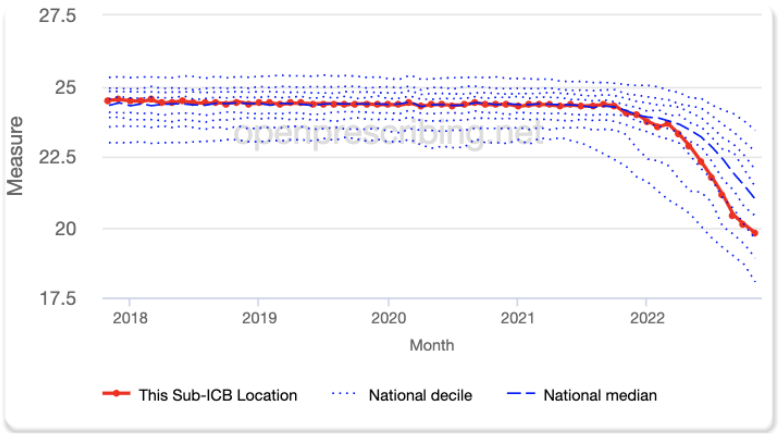
ES-O2

View all measures for this Sub-ICB Location →

This measure shows how this organisation compares with its peers across NHS England. This is indicative only, and should be approached with caution. Read more about measures.

Environmental impact of inhalers - average carbon footprint per salbutamol inhaler — Link to chart

Mean carbon impact (kg CO_2e) per salbutamol inhaler prescribed



Download data

Why it matters: The NHS has committed to reducing its carbon footprint by 80% by 2028 to 2032, including a shift to lower carbon inhalers.

Salbutamol metered dose inhalers (MDIs) are the single biggest source of carbon emissions from NHS medicines prescribing. The 2022-2023 PCN Investment and Impact Fund (IIF) therefore includes an indicator focusing on mean carbon emissions per salbutamol inhaler prescribed (kg CO_2e). The aim is to encourage prescribing of salbutamol products associated with lower carbon emissions, resulting in a significant reduction in NHS carbon emissions.

Data on carbon emissions per salbutamol inhaler can be viewed in the table here.

Explore:

- Split the measure into charts for individual practices
- Compare all Sub-ICB Locations in England on this measure
- View this measure on the analyse page
- View technical details for this measure

Tagged as: Greener NHS, NHS England Investment and Impact Fund, Respiratory

https://openprescribing.net/measure/carbon_salbutamol/sicbl/W2U3Z/

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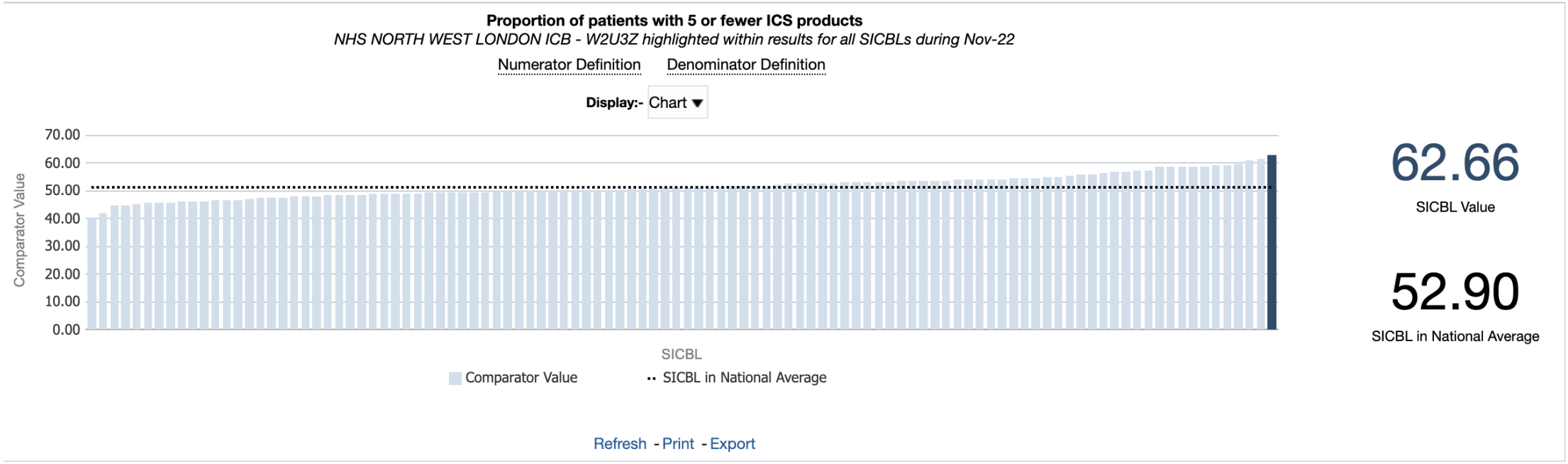
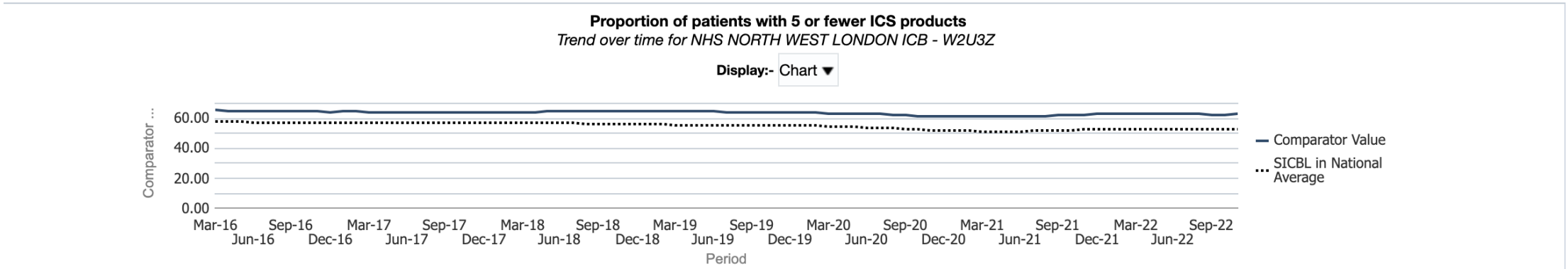
RESP 01

* **Comparator** Proportion of patients with 5 or fewer ICS products | * **Period** Nov-22 | * **SICBL** NHS NORTH WEST LONDON ICB - W2U3Z





https://www.nhsbsa.nhs.uk/access-our-data-products/epact2

North West London Integrated Care System

Classification: Official

Publication approval reference: B1357

Network Contract Directed Enhanced Service

Contract specification 2022/23 – PCN Requirements and Entitlements

March 2022

ID	Description	Numerator (N)	Denominator (D)	Prevalence numerator (E)	Indicator Type; Points; Desired Direction; Thresholds; Data source
Environmental sustainability (ES) area					
ES-01	Metered Dose Inhaler (MDI) prescriptions as a percentage of all non-salbutamol inhaler prescriptions issued to patients aged 12 years or over	Of the denominator, the number of prescriptions for metered dose inhalers	Number of prescriptions for non-salbutamol inhalers issued to patients aged 12 years or over	Indicator denominator	Standard Quantitative; 27; Downwards; 44% (LT) / 35% (UT); GPES
ES-02	Mean carbon emissions per salbutamol inhaler prescribed (kg CO_2e)	Total carbon emissions from all inhalers in the denominator (kg CO_2e)	Number of salbutamol inhalers prescribed	Number of patients prescribed salbutamol inhalers	Standard Quantitative; 44; Downwards; 22.1kg (LT) / 18.0kg (UT);

https://www.england.nhs.uk/wp-content/uploads/2022/03/B1357-Network-Contract-Directed-Enhanced-Service-contract-specification-2022-23-primary-care-network-requireme.pdf

North West London Integrated Care System

Environmental impact of inhalers - prescribing of non-salbutamol Metered Dose Inhalers (MDIs)

ES-01

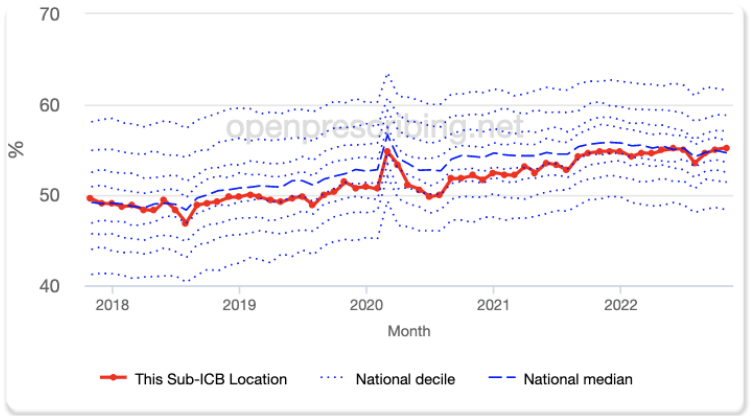
NHS North West London

View all measures for this Sub-ICB Location →

This measure shows how this organisation compares with its peers across NHS England. This is indicative only, and should be approached with caution. Read more about measures.

Environmental impact of inhalers - prescribing of non-salbutamol Metered Dose Inhalers (MDIs) | Link to chart

MDIs prescribed as a proportion of all inhalers in BNF Chapter 3, excluding salbutamol



Download data

Why it matters: The NHS has committed to reducing its carbon footprint by 80% by 2028 to 2032, including a shift to lower carbon inhalers. Dry powder inhalers (DPIs) and other newer types of inhalers like soft mist inhalers are less harmful to the environment than traditional metered dose inhalers (MDIs).

The 2022-2023 PCN Investment and Impact Fund (IIF) includes an indicator focusing on the percentage of non-salbutamol MDI prescriptions issued. NHSE England's aim is that, in line with best practice in other European countries, by 2023/24 only 25% of non-salbutamol inhalers prescribed will be MDIs.

NICE has produced a inhaler decision aid to facilitiate discussion about inhaler options.

Please note: as prescribing data does not contain patient information, this measure uses prescription items for all ages. This indicator is also calculated using items issued rather than prescriptions issued. The data shown will therefore not exactly match the IIF indicator.

Explore:

- Split the measure into charts for individual practices
- Compare all Sub-ICB Locations in England on this measure
- View this measure on the analyse page
- View technical details for this measure

Tagged as: Greener NHS, NHS England Investment and Impact Fund, NICE, Respiratory

https://openprescribing.net/measure/environmental_inhalers/sicbl/W2U3Z/

North West London Integrated Care System

LADS Dashboard

For more detailed analysis click on the bottom right corner of each quadrant

North West London
Whole Systems Integrated Care

Population

Total ICS Population	2,700,450
Asthmatic Population	86,352
Adult Asthmatic Patients	53,352
CYP Asthmatic Patients	33,000
Asthmatic Patients with a Co-morbidity	16,852
Patients under Secondary Care in past 12 months	13,856
A&E patients	9,253
Inpatients under Secondary Care	4,603

Clinical

Proportion of High Dose ICS items	xx%
Proportion of patients receiving 5 or fewer inhalers for ICS products	xx%
Number of ACTs recorded in last 12 months	xxx
Number of patients with Quality Assured Diagnosis	xxx
Number of patients with an Annual Review in last 12 months	xxx
Prescribing Volume of Prednisolone Tablets	xxx
Carbon footprint of DPIs vs. MDIs Ratio	xxx

Finance

Population Detailed Dashboard | Population Map Dashboard

Total Prescription Cost	£xxx
# of patients with ≥ 2 unplanned admissions (last 6 months)	xxx
# of patients seen by GO within 2 weeks of NEL acute discharge	xxx
Average acute spend per patients	xxx
Asthma related number of bed days	xxx

Wider Determinants

Clinical Detailed Dashboard

Number of Smokers (% of asthmatic patients)	xxx (xx%)
Number of patients prescribed anti-smoking products (% of asthmatic patients)	xxx (xx%)
Number of patients overweight or obese (% of asthmatic patients)	xxx (xx%)
Number of patients living in highly polluted area (% of asthmatic patients)	xxx (xx%)

Wider Determinants Detailed Dashboard

https://www.nwlondonics.nhs.uk/professionals/whole-systems-integrated-care-wsic/information-care-professionals

Clinical Care of Asthmatic Patients

Analysis of clinical considerations for asthmatic patients

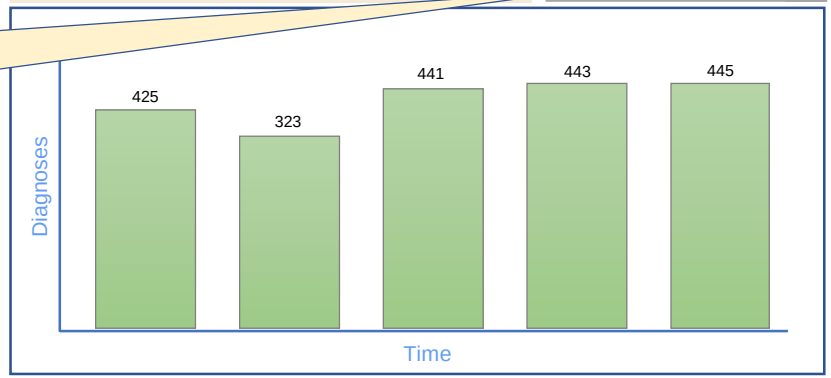
Use the filters below or click on a chart to update the others accordingly

Health Borough	PCN	Practice	Gender	Age band	Deprivation	Ethnicity
All	All	All	All	All	All	All

Proportion of High Dose ICS Items	Prop of patients receiving ≤ 5 inhalers for ICS products	# of ACTs recorded in last 12 months	# of patients with Quality Assured Diagnosis	# of patients with Annual Review in last 12 months	Prescribing Vol. of Prednisolone Tablets	Carbon Footprint of DPIs vs. MDIs Ratio
xx%	xx%	xxx	xxx	xxx	xxx	xxx

Assured Spirometry Diagnoses over Time

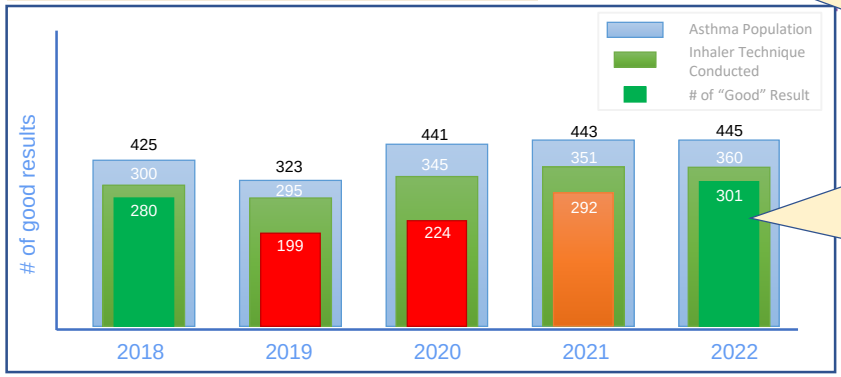
Assured Spirometry



User able to select different Diagnostic methods and see the trend over time. Options include: Assured Spirometry, Peak Flow and FEV1

Asthma Review Trends over last 5 years

Inhaler Technique



User able to select different Asthma Review metrics . Options include: Inhaler Technique, Asthma Personal Plans, ACTs

Stacked bar charts used to show relative proportion within the measure.

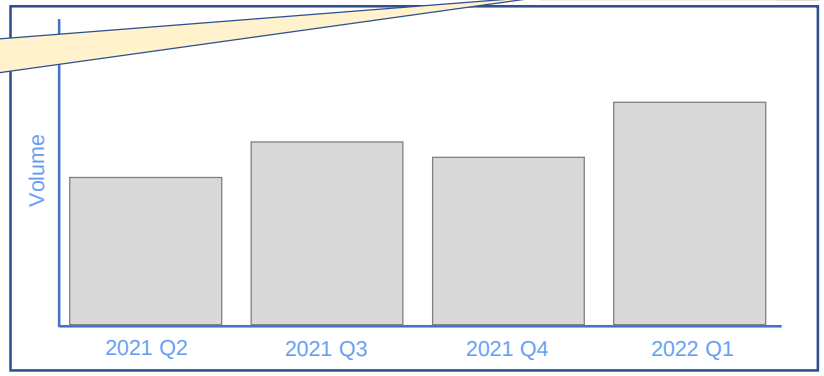
Total Asthmatics > Patients with Inhaler technique > "Good" Result

Total Asthmatics > Number of Patients with Personal Plan

Total Asthmatics > # of patients with ACT > # of patients with ACT < 20

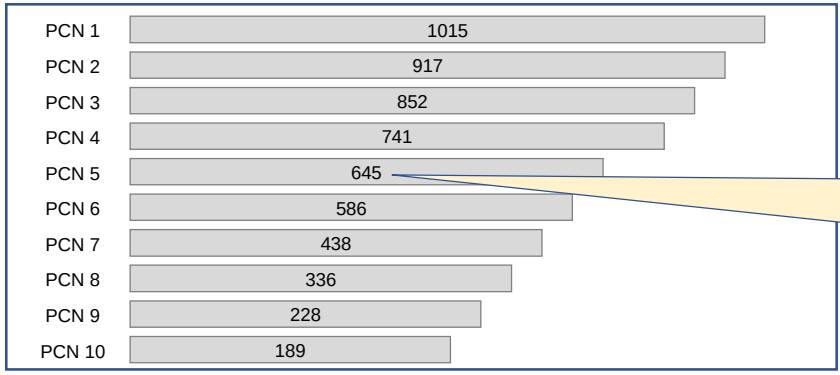
Volume of Prednisolone Prescriptions over Time

Prednisolone



User able to select different Prescriptions – SABAs, ICSs, Prednisolone, DPI vs. MDI ratio over time

DPI vs MDI Ratio – Top 10 PCNs



A tooltip could show a map breakdown of the specific PCN (the various practices, coloured by DPI vs. MDI ratio)

How common are inhaler errors?

Patients

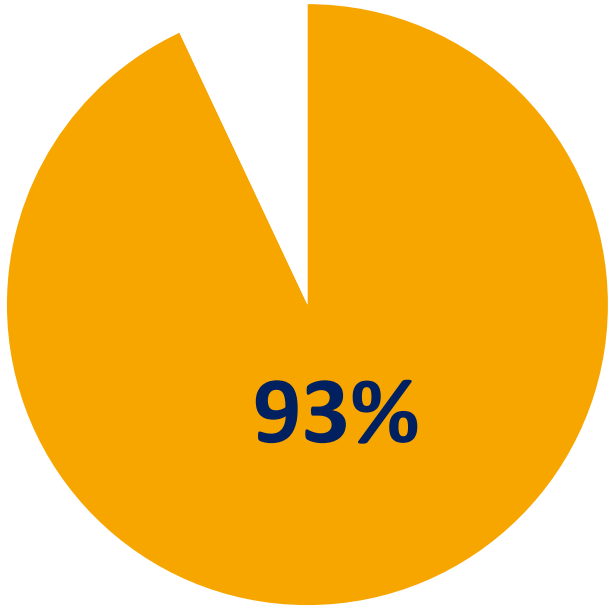
pMDI:
86.8%

DPI:
60.9%

pMDI + spacer:
52.0%

Overall percentage of patients with at least one error, according to systematic review[1]

Healthcare professionals (HCPs)



HCPs who made at least one error in the seven steps of using a pMDI[2]

pMDI: pressurised metred-dose inhaler; DPI: dry powder inhaler.

1. Chrystyn H, et al. *npj Prim Care Respir Med.* 2017;27:22; 2. Baverstock M, et al. *Thorax.* 2010;65:117–118

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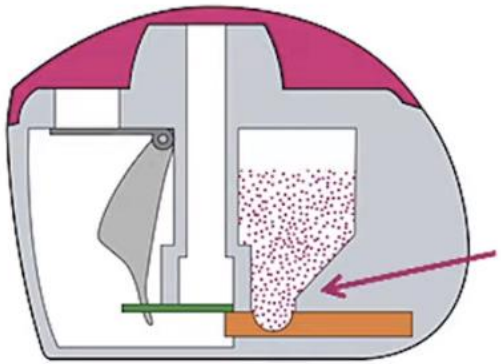
Improving inhaler technique

Potential implications of sub-optimal technique:

- Poor control
- Increase in side effects
- Increased dose
- Escalation of treatment
- Increased hospital admission
- Increased cost

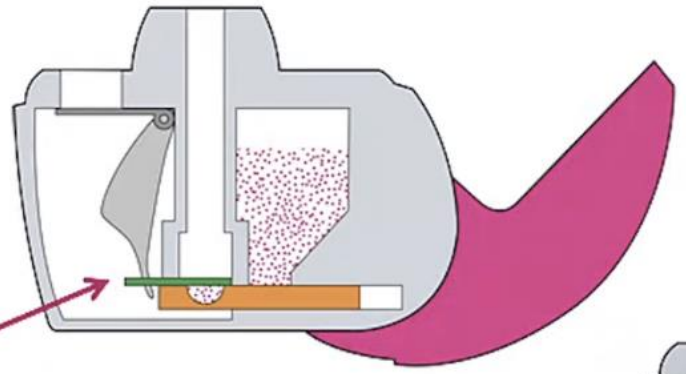
https://www.respiratoryfutures.org.uk/media/69775/ukig-inhaler-standards-january-2017.pdf

NEXThaler's operating mechanism

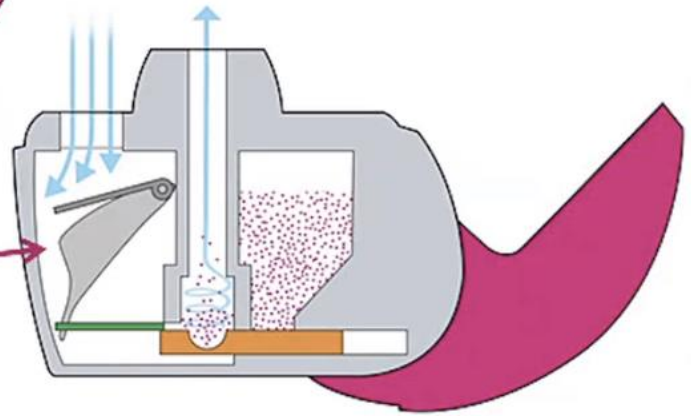


Dosing cup is loaded gravimetrically

Dose prepared (hopper-fed dosing cup – gravity loaded) when user opens cover



Dose protector covers the dose before release



Dose protector is released on inhalation

Dose only released into airstream when inhalation above 35 l/min threshold

Corradi M, *et al.* Expert Opin. Drug Deliv 2014; 11(9).

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Device (engine) matters as much as the drug (petrol)

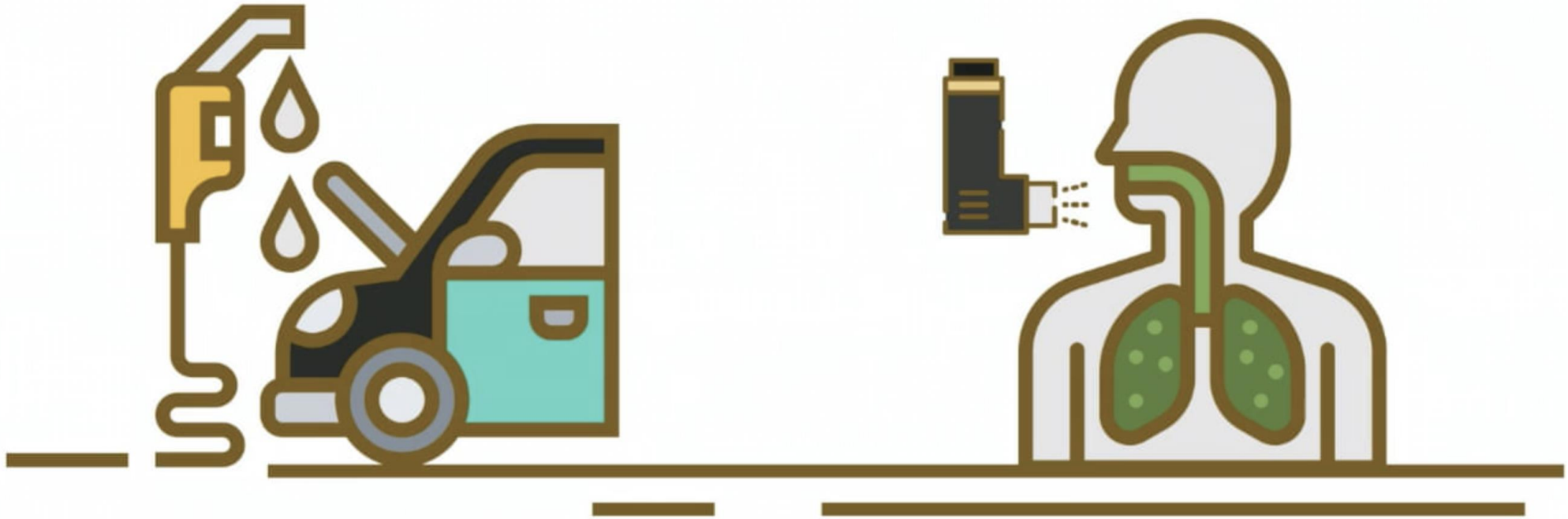
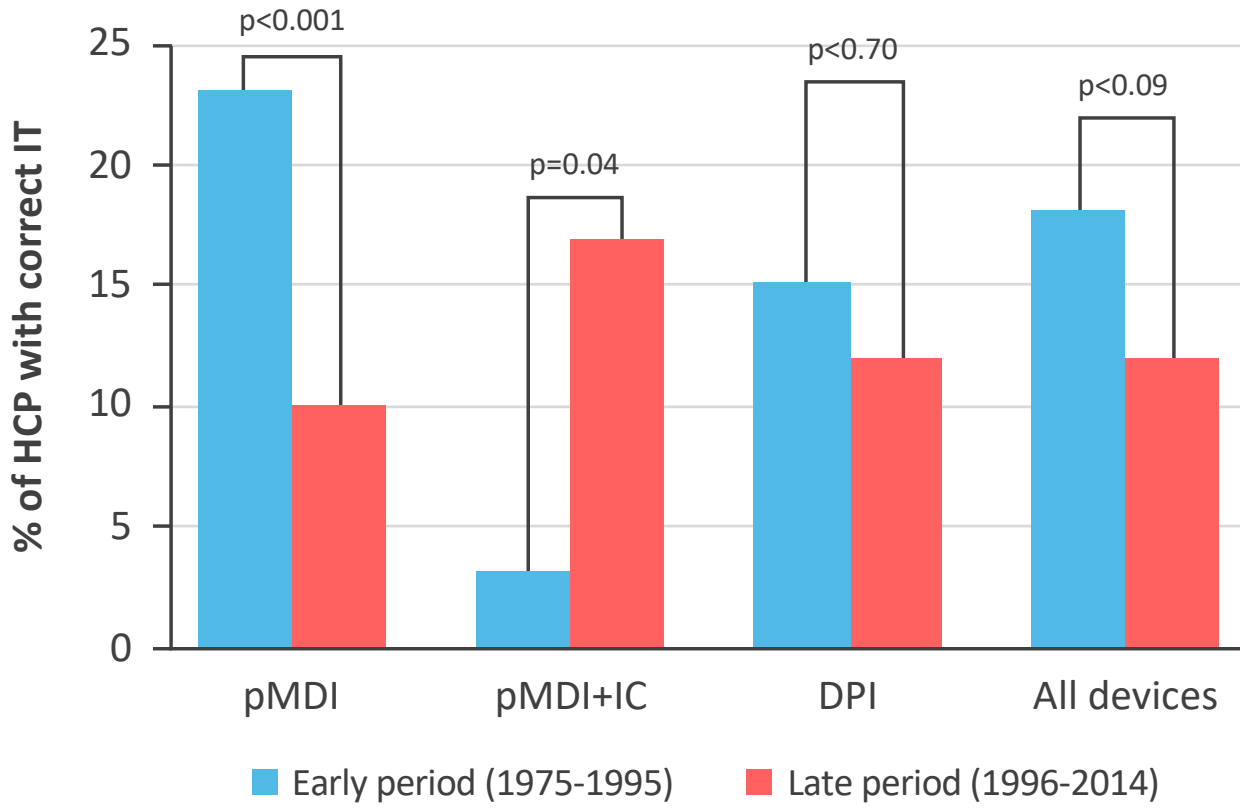


Image - with thanks
Prof Omar Usmani UKIG

Healthcare providers commonly make mistakes "*When did you last get your technique checked?"*

- Systematic review of errors in the use of inhalers by healthcare professionals
- Only 15.5% of healthcare providers were considered to have correct inhaler technique
- This could be an issue when educating patients on appropriate device use



- HCP: healthcare professional; IT: inhalation technique; pMDI: pressurized metered dose inhaler; IC: inhalation chamber; DPI: dry power inhaler.
- Plaza, Vicente, Jordi Giner, Gustavo J. Rodrigo, Myrna B. Dolovich, and Joaquin Sanchis. "Errors in the Use of Inhalers by Health Care Professionals: A Systematic Review." *The Journal of Allergy and Clinical Immunology: In Practice* 6, no. 3 (May 2018): 987–95. https://doi.org/10.1016/j.jaip.2017.12.032.

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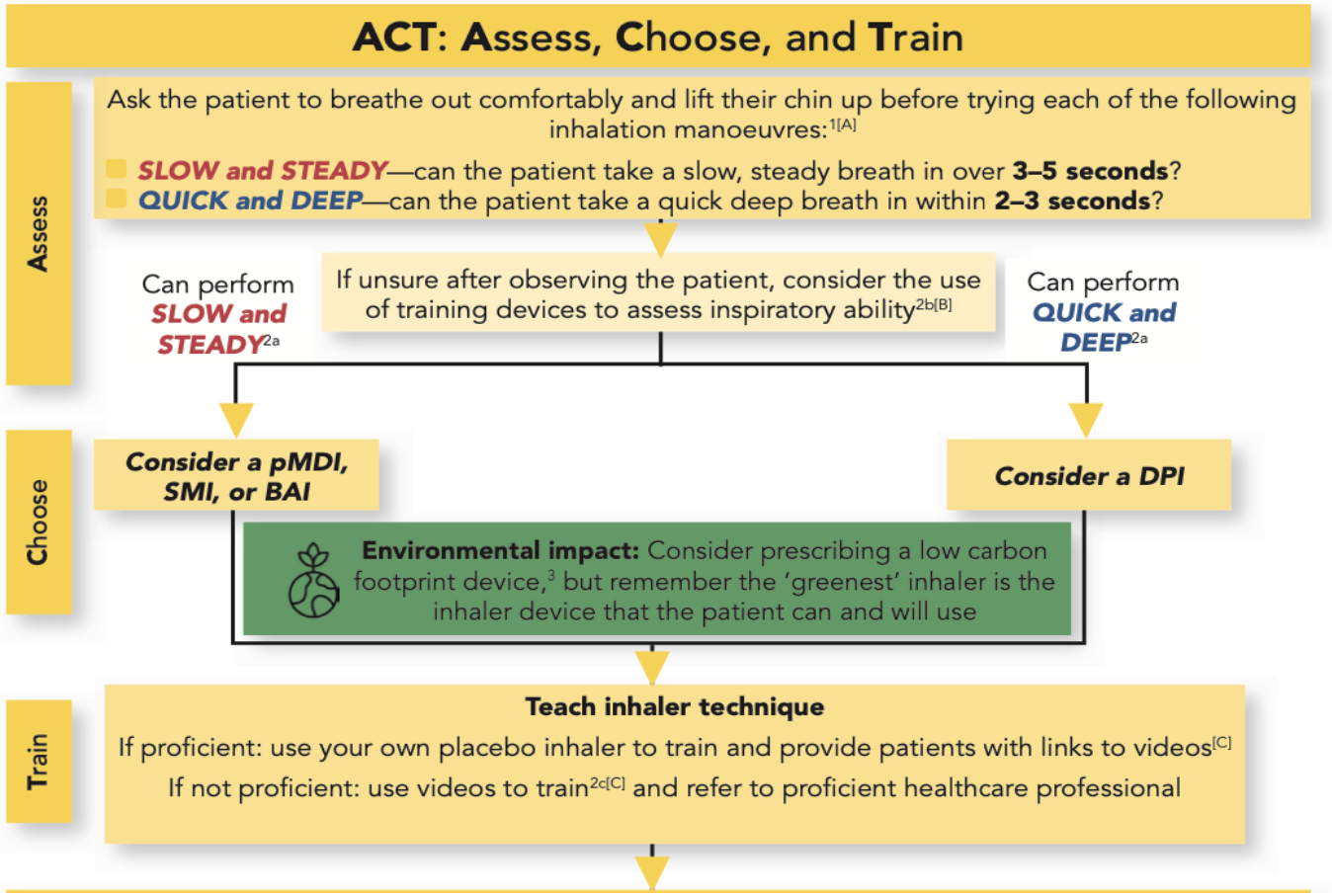
Choosing an appropriate inhaler device for the treatment of adults with asthma or COPD

Development Group—Usmani, Capstick, Saleem, Scullion

This management algorithm was developed by MGP Ltd and supported by Chiesi Ltd through the provision of a grant for its production. Chiesi Ltd had no editorial control other than to check factual accuracy. See end of algorithm for full disclaimer.



COPD: Chronic obstructive pulmonary disease
SMI: Soft mist inhaler

https://www.guidelines.co.uk/respiratory/inhaler-choice-guideline/455503.article Last accessed October 2020

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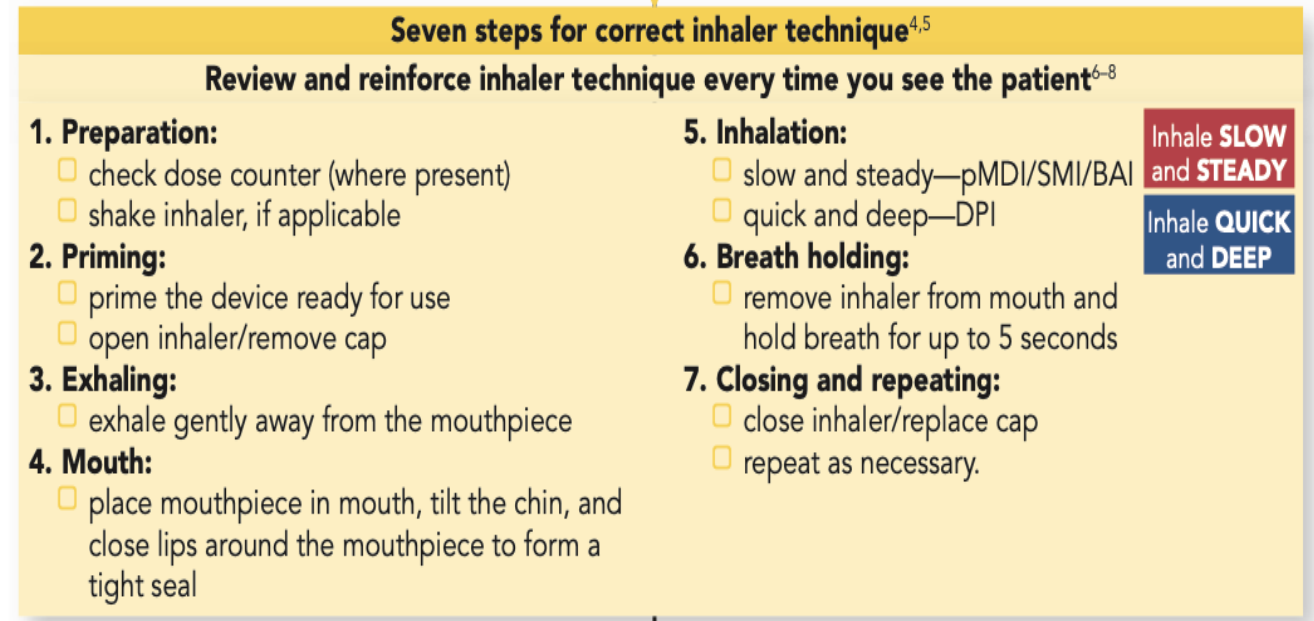


Select required drug once inhaler device has been chosen, in line with local formulary

If you and the patient are both happy, prescribe the drug and device[6,8]

[A] If the patient can perform both inhalation manoeuvres, choose according to patient preference

[B] Examples of training devices that can be used to assess inspiratory ability are: AIM machine, Clip-Tone, Flo-Tone, In-Check DIAL inspiratory flow meter, placebo whistles

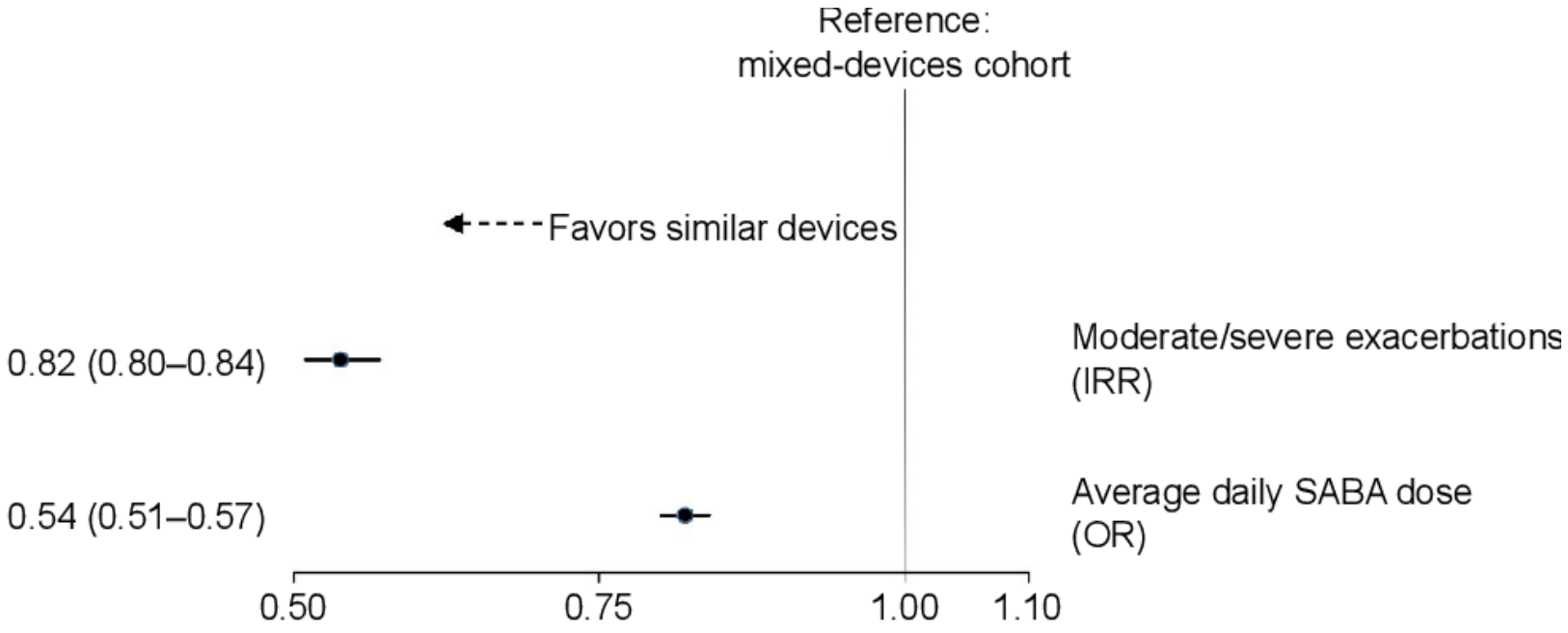
[C] Training videos developed by the UK Inhaler Group (UKIG) can be found on the Asthma UK website: www.asthma.org.uk/advice/inhaler-videos and RightBreathe: www.rightbreathe.com

BAI=breath-actuated inhaler; DPI=dry powder inhaler; pMDI=pressurised metered dose inhaler; SMI=soft mist inhaler

https://www.guidelines.co.uk/respiratory/inhaler-choice-guideline/455503.article Last accessed October 2020

Multiple devices/inhaler technique may confuse patient and clinician

- Device consistency
- Same device type may lead to better disease control
- Inhaler coaching important (repetition), reinforced with videos



Adjusted[a] incidence rate ratio (IRR)/ proportional odds ratio (OR) for similar-devices cohort, with 95% CI

Bosnic & Chrystyn et al

https://www.asthma.org.uk/advice/inhaler-videos/

www.rightbreathe.com

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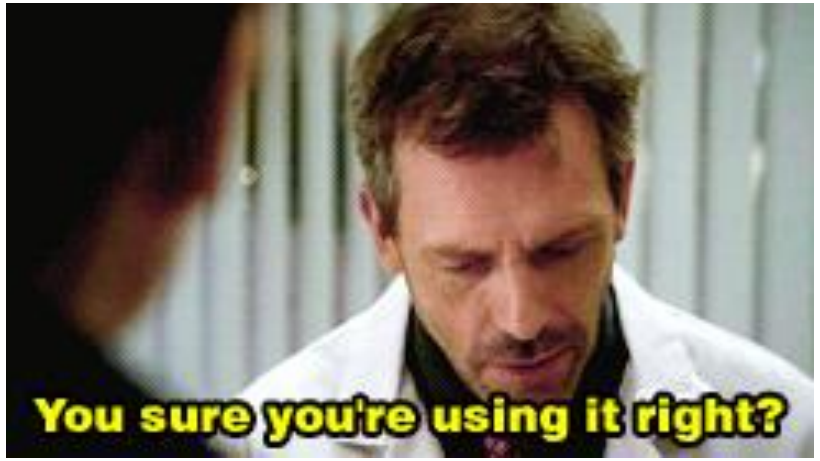
Making every contact count:

Never ask a person ‘do you know how to use their inhaler?’



Did you know research suggests 9 out of 10 health care professionals like me may make a mistake when using one of these pMDI inhalers. This is why regular coaching is important.

Baverstock M, et al. *Thorax.* 2010;65:117–118

Can you show me?

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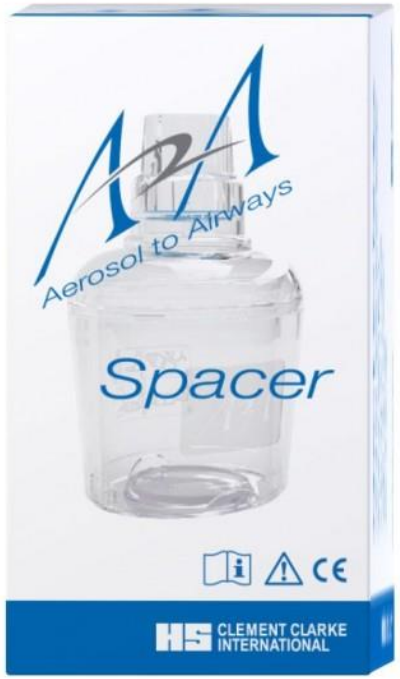
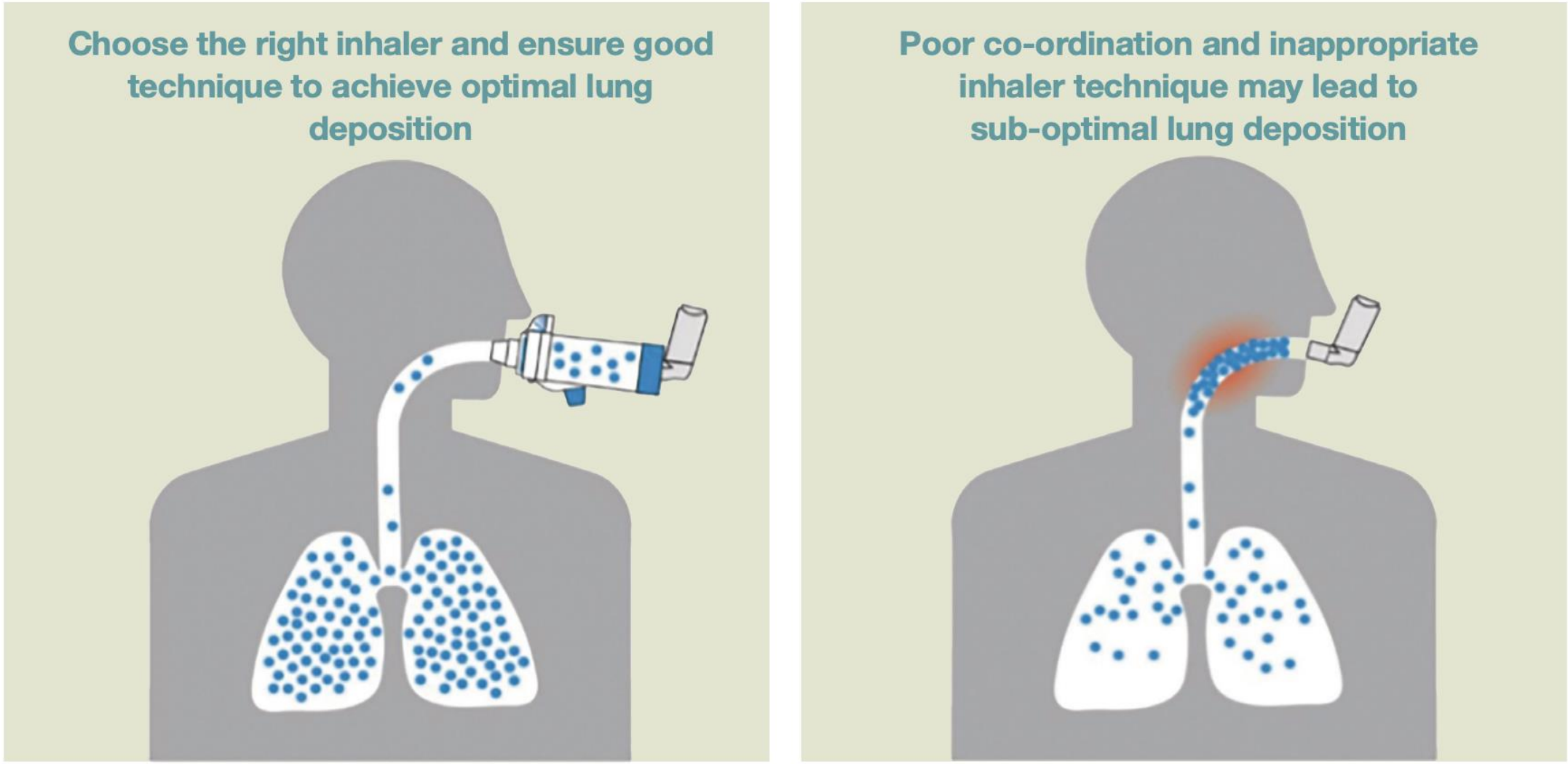
Spacers
(how can giving additional plastic help support sustainability?)



Images taken from Rightbreathe.com

Figure 2. The importance of appropriate inhaler technique [Image copyright Trudell Medical International].



https://www.pcrs-uk.org/sites/pcrs-uk.org/files/pcru/articles/2021-July-Issue-22-GHC_ChangingInhalersSharedDecisions.pdf

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NHS England London

Asthma inhalers and the environment

All inhalers can affect the environment but some can add to global warming more than others.

How do inhalers affect the environment?

Metered dose inhalers (MDIs) shown in image 1, and breath-actuated inhalers (BAIs) shown in image 2 are safe for humans but contain a propellant (gas) that can contribute to global warming.

There will be lower carbon MDI options available by 2025. Speak to your pharmacist to learn more.

Image 1: MDI with a spacer

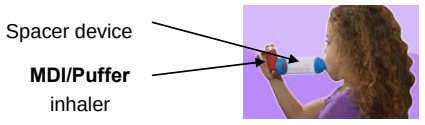
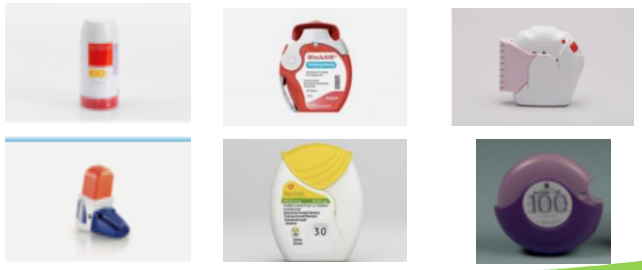


Image 2: Easi-breathe inhaler

Easi-breathe is a type of breath-actuated inhaler

Dry powder inhalers (DPIs, image 3) do not contain a propellant. Most children aged 10 years and over may be able to use them. Always refer to the manufacturer's leaflet and check with your usual healthcare professional if you are unsure how to use them.

Image 3: Dry powder inhalers



What can you do to help?

Good asthma control = good for you + good for the environment

1 Using your preventer inhaler regularly, with good technique, helps control your asthma. This means you will need less of the blue reliever/emergency inhaler

- Using more preventer and less blue reliever means less inhalers are used overall which is better for the planet
- Children under the age of 10 years in most cases should continue to use an MDI with a spacer
- For children aged 10 years and older it may be possible to use a DPI
- Speak to your trained asthma nurse, pharmacist or GP to see if a DPI might suit you better and to know more about good inhaler technique. You can always change back if you choose to.

2 Reduce waste and know when your inhaler is empty

You or your parent/carer can:

- Ask your asthma clinician if they can find an inhaler with a dose counter so you know when it's almost empty and needs to be reordered
- Set up a repeat prescription for your preventer inhaler and only order inhalers when you need them
- Check the expiry date of all your medicines regularly
- Check with the pharmacist that you are using your inhaler correctly.

3 Return used or empty inhalers to the local community pharmacy

Return all used and unused inhalers no longer in use to a pharmacy for safe disposal. It is important that inhalers are NOT put into household waste, especially MDIs as propellants will be released into the environment (greenhouse gases).

Find more information by visiting this website:
www.recyclenow.com/what-to-do-with/inhalers-0

Patient Information Leaflet – Published date November 2022. Review date November 2023. Produced by NHSE London CYP Pharmacy Asthma Group chaired by D Attar-Zadeh and S Makhecha.

https://www.healthylondon.org/wp-content/uploads/2022/12/Patient-info-leaflet-new-design-digital.pdf

Improving Inhaler Prescribing

Dr Vasu Siva

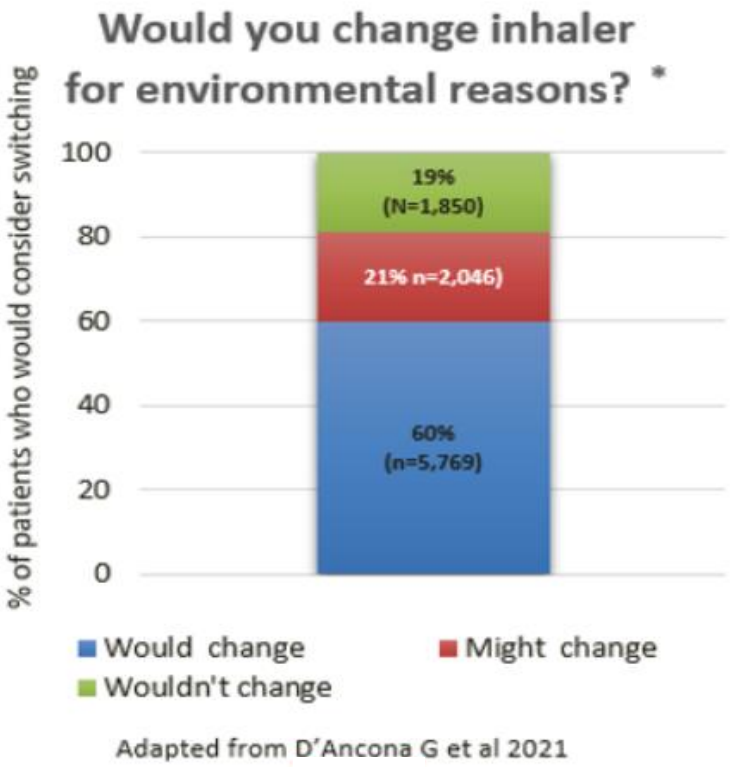
GP Partner at Hillview Surgery

NWL Primary Care Clinical Lead for Green Agenda – Ealing Borough

The sustainability agenda and inhaled therapy: what do patients want?

- Annual Asthma Survey (2020) in UK
- Understand patients' knowledge & attitudes towards CF of MDIs
- 12,145 patients/carers replied

  (82% female, 80% aged 30-69 years and 96% Caucasian)
- 65%: unaware of the CF of MDIs
- 85% thought asthma patients should be encouraged to use more environmentally friendly inhalers
- Considerations for patients switching inhalers:
  - new inhaler was efficacious
  - easy to use & fitted their routine
  - could change back if needed



*Grainne D'Ancona, Andrew Cumella, Charlotte Renwick, Samantha Walker
European Respiratory Journal 2021 58: PA3399; DOI: 10.1183/13993003.congress-2021.PA3399

Practical tips on improving inhaler prescribing in primary care

1. Raise Awareness – Education & Training
Inhaler types

Familiarise with different inhaler types (MDIs, BAIs, DPIs, SMIs)

- Typical 120 or 200 dose preventer MDI (~19 kg CO_2 e)
- Typical DPI (<1 kg CO_2e)

Compare low/high carbon MDIs

- Each 200 dose *Ventolin Evohaler MDI* (~28 kg CO_2e) cf. to small volume salbutamol MDIs (~10 kg CO_2e)
- Each 120 dose *Flutiform* or *Symbicort MDI* (~35 kg CO_2e) cf. to other preventer MDI (~19 kg CO_2e)

SABAs: Lower carbon footprint options…

MDI Ventolin **28kg CO_2e**

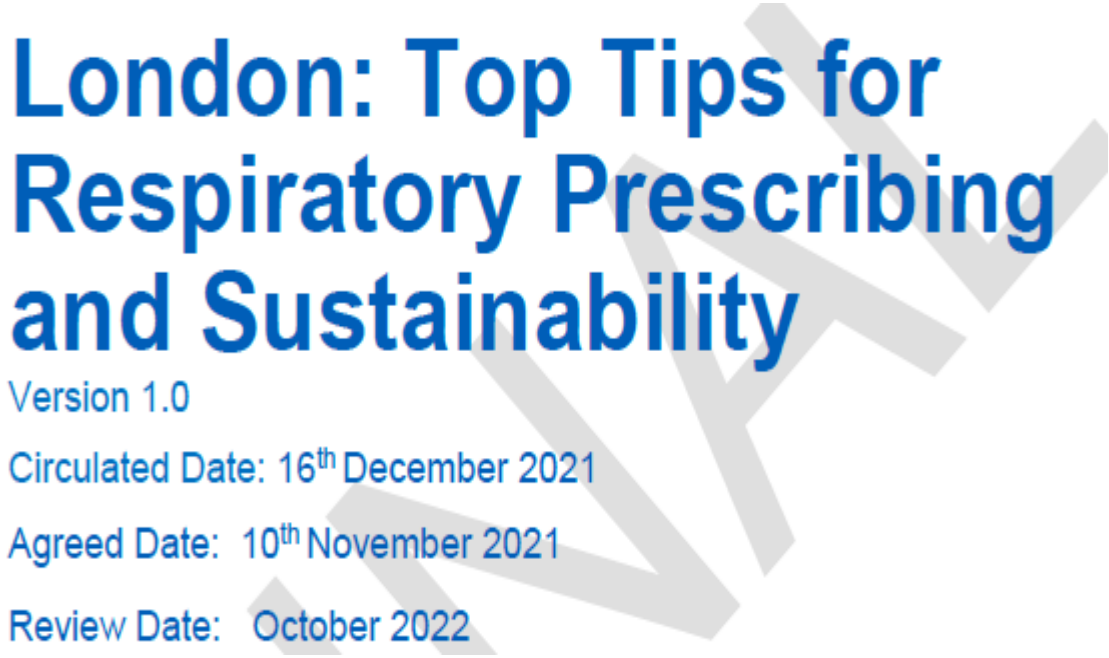
MDI Salamol **11kg CO_2e**

DPI Easyhaler
Salbutamol 0.62kg CO_2e

Raise Awareness – Education & Training

Inhaler types

Tip 1: Update your practice formulary



London: Top Tips for Respiratory Prescribing and Sustainability

Version 1.0

Circulated Date: 16th December 2021

Agreed Date: 10th November 2021

Review Date: October 2022

2. Raise Awareness – Education & Training
Right drug – Right device – Right patient

Tip 2. Introduce 'Inhaler prescribing' - recurring item in clinical meetings

Consultations should be around disease control, device choice & inhaler technique

➢RESCUE inhaler instead of RELIEVER

➢Assess, Choose & Train inhaler technique
- NICE patient decision aid flow chart (nurses)
- Train & then check inhaler technique to prevent wastage
  (resources: Rightbreathe, How to use your inhaler | Asthma UK)

➢Encourage patients to look after their inhalers & not over-order

Raise Awareness – Education & Training
Right drug – Right device – Right patient

Tip 3. Review patients using a mixture of pMDI & DPI inhalers
(better to have only one inhaler type to avoid errors arising from using different inhalation techniques)

Tip 4. Review patients requesting multiple SABA inhalers

Tip 5. Where MDIs needed, choose brand & regime with care

Raise Awareness – Education & Training
Right drug – Right device – Right patient

Tip 6. One puff instead of two!

One puff of a 200mcg Beclomethasone inhaler, instead of 2 puffs of a 100mcg inhaler

- Improves compliance
- Cheaper for patient (pay half as many prescription charges)
- Reduces wastage
- Improves carbon footprint

3. Raise Awareness – Education & Training

Patient communication

Tip 7. Encourage patients to return their used or unwanted inhalers to pharmacies for environmentally safe disposal

'To reduce medicine wastage PLEASE CHECK YOUR PRESCRIPTION IS CORRECT BEFORE YOU LEAVE THE PHARMACY. Medicines returned before you leave the pharmacy can be given to another patient. If medicines are taken home they have to be destroyed'

Improving Inhaler Prescribing
Whole-team approach

Patient with symptoms	Patient needs repeat medication	Medication review	Patient annual review	Patient attends hospital
Clinician	Receptionist, Clinical Pharmacist	Clinical Pharmacist, Nurse, Doctor	Nurse, Clinical Pharmacist, Admin team	Review by Doctor/Nurse /Clinical Pharmacist

CODING

Don't forget our ARRS colleagues (e.g. social prescribers), local pharmacies & secondary care team!

Conclusion

We can deliver high quality, safer, ‘greener’ respiratory care for our patients with

- Right drug – Right device – Right patient
- Teach & assess inhaler technique
- Prioritise DPIs where appropriate

Case Studies

Dr Vasu Siva
Darush Attar-Zadeh

North West London Integrated Care System

Case study 1 (54 year old female)

- A person with **stable asthma** is invited in for an annual review
- ICS 100mcg 2 puffs bd pMDI plus spacer (no mask)
- Salbutamol pMDI 1-2 puffs for wheeze, breathlessness, cough, chest tightness
- ICS:SABA ratio – 6/1 in the last 12 months
- Inhaler technique good

- A 10 minute consultation

Part of asthma review

- Introduce self and what they would like to get out of the consultation
- Explore person's knowledge of basic asthma and how the treatments work
- Acknowledge that a lack of adherence to preventer treatment happens occasionally. Has this ever happened to her?
- Ask about Personalised Asthma Action Plan and when it was last updated
- Congratulate person that 1 blue inhaler lasting 6 months is an indicator of good control

What would you do next?

1) During review, explain the potential environmental impact of pMDI's vs DPI's and suggest that she changes to a DPI after demonstrating inhaler technique
2) As part of a shared decision-making process explore other device options that are potentially lower carbon including DPI. Explore dose counters, safer disposal schemes.
3) As part of shared decision-making process explore another pMDI option that is potentially lower in HFA propellant volume after discussing GWP. Explore dose counters, safer disposal schemes.

Case study 2 (24 year old male)

- A person with a **poorly controlled asthma -** invited in for an asthma review (as part of a PCN QI project)
- ICS 100mcg 2 puffs bd pMDI plus spacer (no mask)
- Salbutamol pMDI 1-2 puffs for wheeze, breathlessness, cough, chest tightness
- ICS:SABA ratio – 1/6 in the last 12 months
- Inhaler technique poor, spacer not used

- A 10 minute consultation

Initial review

- Introduce self and rationale for session, any questions and what they would like to get out of the consultation.
- Explore person's knowledge of basic asthma and how the treatments work
- Acknowledge that a lack of adherence to preventer treatment happens occasionally. Has this ever happened to him? (Adherence)
- Ask about Personalised Asthma Action Plan and when it was last updated
- Discuss SABA over-reliance and potential problems

What would you do next?

1) Explain the potential environmental impact of pMDI's vs DPI's and suggest that he changes to a DPI after demonstrating inhaler technique
2) As part of a shared decision-making process explore other device options that are potentially lower carbon including DPI and coach technique. Explore dose counters, safer disposal schemes.
3) As part of shared decision-making process explore another pMDI option that is potentially lower in HFA propellant volume after discussing GWP then coach technique. Explore dose counters, safer disposal schemes.

Case Study 3

- Your PCN senior manager has asked you to help the practices you work in reach the IIF targets and have suggested as part of ES-01 (non-salbutamol) to do a system search and identify all patients on Fostair 100/6 and 200/6 pMDI + spacer and look to change them over to the Nexthaler device in the equivalent strengths. They've been told this is a less complex switch as per PrescQIPP suggestion. Discuss your next actions?

Switch from pMDI	Switch to lower carbon footprint alternative	Therapeutic group[15]	Different drug(s)?[15]	Different device?[15]	Cost impact per inhaler[25,46]	Indicative carbon footprint reduction per inhaler (g CO_2e)[24,47]	Difference in licensed indication or age range?[17,44-45]
Cost neutral switches							
Fostair® 100/6 pMDI	Fostair® NEXThaler 100/6	ICS/LABA	No	Yes	£0.00	-10,359	No
Fostair® 200/6 pMDI	Fostair® NEXThaler 200/6	ICS/LABA	No	Yes	£0.00	-13,263	No

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What would you do?

A) Proceed with identifying patients and change them over – reinforced with a video from RightBreathe or A+LUK

B) Challenge the senior manager and say that tackling SABA over-reliance is more important

C) Run the search and identify a cohort of patients you think would benefit from a DPI. You still challenge senior manager on the appropriateness of switching in some cases without a F2F review

Presentations contributing to variation

In the quarter ending Oct 2021, the numerator in this measure was composed of the following presentations:

Show 100 entries Search:

Presentation	Items	Quantity	Cost
Clenil Modulite 100micrograms/dose inhaler	475	656	£4,544.62
Fostair 100micrograms/dose / 6micrograms/dose inhaler	196	285	£7,793.85
Clenil Modulite 200micrograms/dose inhaler	90	115	£1,735.06
Fostair 200micrograms/dose / 6micrograms/dose inhaler	77	124	£3,390.97
Sirdupla 25micrograms/dose / 125micrograms/dose inhaler	69	95	£1,989.53
Sirdupla 25micrograms/dose / 250micrograms/dose inhaler	69	96	£2,536.11
Clenil Modulite 50micrograms/dose inhaler	68	96	£332.05
Flutiform 125micrograms/dose / 5micrograms/dose inhaler	56	78	£2,036.95
Generic Trimbow 87micrograms/dose / 5micrograms/dose / 9micrograms/dose inhaler	50	61	£2,531.70
Seretide 250 Evohaler	49	74	£2,023.79
Seretide 125 Evohaler	48	74	£1,618.88
Flutiform 250micrograms/dose / 10micrograms/dose inhaler	43	60	£2,549.49
Qvar 100 inhaler	26	37	£594.04
Flutiform 50micrograms/dose / 5micrograms/dose inhaler	19	29	£389.56
Ipratropium bromide 20micrograms/dose inhaler CFC free	16	16	£83.13
Beclometasone 100micrograms/dose inhaler CFC free	16	20	£138.56
Fluticasone 125micrograms/dose / Formoterol 5micrograms/dose inhaler CFC free	12	12	£313.47
Fluticasone 250micrograms/dose / Formoterol 10micrograms/dose inhaler CFC free	12	15	£637.38
Seretide 50 Evohaler	11	15	£244.36
Serevent 25micrograms/dose Evohaler	10	17	£464.03
Clenil Modulite 250micrograms/dose inhaler	10	12	£182.40
Fluticasone 125micrograms/dose inhaler CFC free	10	15	£297.50
Salmeterol 25micrograms/dose inhaler CFC free	9	16	£436.64
Beclometasone 50micrograms/dose inhaler CFC free	9	11	£38.07
Fluticasone 250micrograms/dose inhaler CFC free	8	10	£337.25
Fluticasone 125micrograms/dose / Salmeterol 25micrograms/dose inhaler CFC free	8	12	£262.53

Refer to latest SPC for licensing and BTS/SIGN for equivalent dose potencies

https://openprescribing.net

Prioritisation of Patients

- Overuse of SABAs in people with asthma (6 or more)
- Under-ordering inhaled corticosteroids
- High dose inhaled corticosteroids
- *Oral corticosteroid course(s) prescribed*
- Recent discharge from hospital
- Multiple inhaler devices

22-63% – average adherence among patients to preventer medicines[54]	**3 or more – blue (reliever) inhalers a year per patient is associated with increased visits to hospitals**[55, 56]

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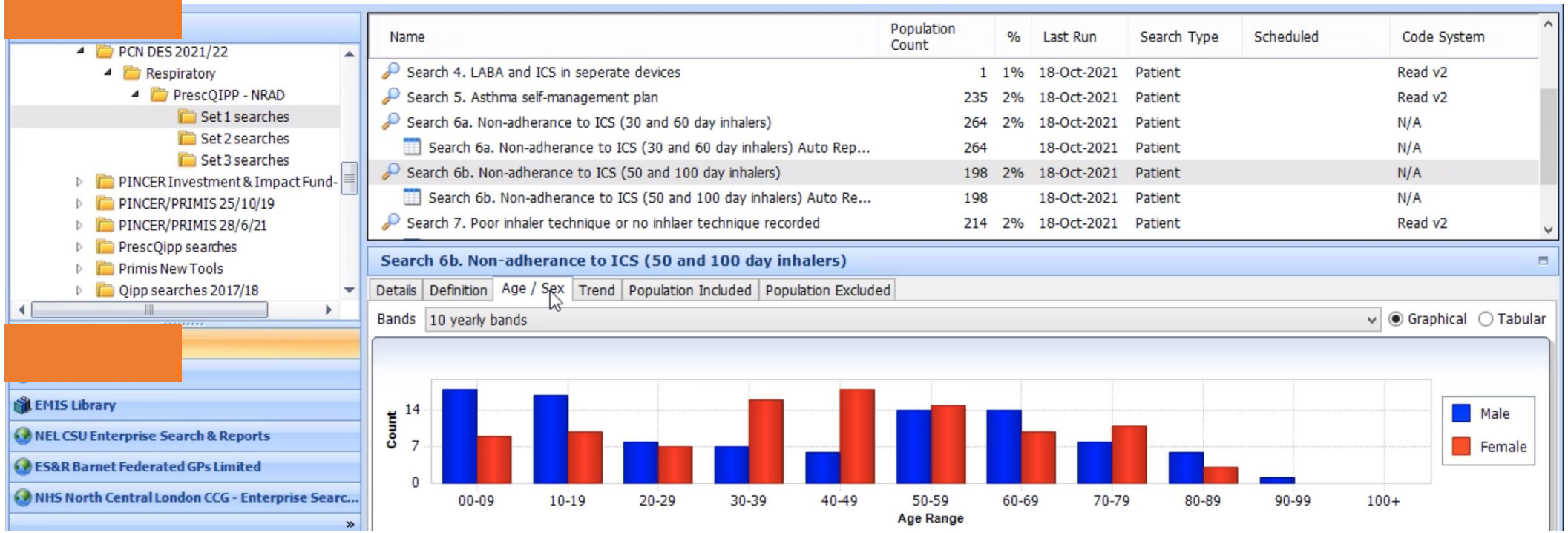
ICS adherence, high dose ICS searches



Some Key Take Away Messages (from this talk)

- Upskill yourselves to become an inhaler coach (7 steps)
- Find the right device that suits the patient's ability (ACT)
- DPI's will be appropriate for many patients (<10-year-olds trickier)
- Stick to the same inhaler type following prescribing guide (consider MART where possible)
- Take your time with ES01 (non-salb switching), shared decisions
- Return inhalers to community pharmacy (use resources), NMS (inhaler technique), follow patients up soon after change

LADS demonstration
Weds 22nd Feb at 1pm – 2pm

Please register here:

NWL (NEW) London Asthma Showcase LADS

North West London Integrated Care System

NWL Improving Inhaler Prescribing Webinar

Any Questions

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