BLMK Integrated Care System

NHS

BEDFORDSHIRE, LUTON AND MILTON KEYNES AREA PRESCRIBING COMMITTEE (APC)

Strategies to support reduced inhaler carbon emissions

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The following organisations contribute to and participate in the BLMK APC – Bedfordshire, Luton and Milton Keynes Clinical Commissioning Group; Bedfordshire Hospitals NHS Foundation Trust; Cambridgeshire Community Services NHS Trust; Central and North West London NHS Foundation Trust; East London NHS Foundation Trust; Milton Keynes University Hospital NHS Foundation Trust.

Strategies to support reduced inhaler carbon emissions

The NHS Long Term Plan for England 2019 has committed the NHS to reducing greenhouse gas emissions from inhalers, with a target to reduce the carbon impacts of inhalers by 50% by 2030. The British Thoracic Society (BTS)/Scottish Intercollegiate Guidelines Network (SIGN) British guideline on the management of asthma recommends that prescribers, pharmacists and patients should be aware that there are significant differences in the global warming potential (GWP) of different metered dose inhalers (pMDIs) and breath actuated inhalers (BAI) and that inhalers with low global-warming potential (e.g. dry powder inhalers (DPIs) or soft mist inhalers (SMIs) should be used when they are likely to be equally effective. The National Institute for Health and Care Excellence (NICE) has produced a Patient Decision Aid to help people with asthma, alongside health professionals, identify which inhalers could meet their needs and control their symptoms and gives instructions on how to use them. Developing an inhaler carbon footprint reduction strategy should be a phased approach and considered on a case-by-case basis, where clinically appropriate to help prevent any stock shortages and adverse outcomes for patients, pharmacies, or healthcare professionals. This document has been adapted from PrescQIPP and should be used with local respiratory guidelines

Optimise management of respiratory condition (asthma, ACO, COPD)

- Educate patients on regular preventer treatment, promote self-management, ensure inhaler technique and adherence is frequently and consistently reviewed
- Optimise use of non-pharmacological interventions: smoking cessation, exercise and pulmonary rehabilitation, flu immunisation
- Optimise use of long-acting bronchodilators (review the use of SABAs)
- Consider deprescribing, where clinically appropriate, during SMR process.
- Standardise inhaler type and reduce number of single inhaler devices prescribed by switching to combination inhalers where clinically appropriate. Refer to local ICS review protocol here and use ***SystmOne searches (see page 2)*** to help prioritise patients.
- Switch to higher strength inhalers to reduce frequency of puffs where clinically appropriate (Ensure to reduce inhaler quantities issued accordingly)

Examples of clinical adjustments to treatment regimens:

- In adults (aged ≥17) with asthma, offer a LTRA in addition to low dose ICS as maintenance therapy and review in 4 to 8 weeks – refer to local policy
- In children and young people (aged 5 to 16) with asthma on a paediatric low dose of ICS as maintenance therapy, consider an LTRA in addition to the ICS and review the response to treatment in 4 to 8 weeks – refer to local policy
- Consider MART (Maintenance and Reliever Therapy) treatments for appropriate patients – reduce the need for SABA inhalers.

Managing supply and optimising waste processes

- Teach patients how to recognise correctly when inhalers are empty
- Encourage wider use of pMDIs with dose counters on where available
- Educate patients about inhaler recycling and disposal as part of their inhaler technique check (return all used inhalers to pharmacies for correct disposal)
- Aim to prescribe refill capsules / cartridges with re-usable inhalers e.g., when prescribing Handihaler or Respimat inhalers
- Continue to identify patients overuse of SABA inhalers – more than 4 Salbutamol's a year could be a sign of poor disease control. Review patients obtaining Salbutamol from other sources e.g., OOH or Online Pharmacies.

Consider DPIs or SMIs as first choice, where clinically appropriate

- Prescribers should take the opportunity to discuss inhaler carbon footprint reduction during face-to-face patient reviews
- Demonstration of correct inhaler technique and adherence to treatment is key to ensure effective treatment compliance and clinical outcomes
- Changes to the patient's treatment regimen should be well documented and timely communicated to inform the wider multidisciplinary team (e.g., specialists) involved.

Consider these lower carbon footprint alternatives:

Drug	MDIs (High Carbon footprint inhalers)		Lower carbon footprint alternative	
Salbutamol	Ventolin Evohaler® 100	**28Kg C02e/ inhaler**	Salamol MDI **or**	**10-20kg CO2e/inhaler**
			Salbutamol Easyhaler DPI	**<1kg CO2e/ inhaler**
Beclometasone	Clenil® Modulite	**10-20kg CO2e/ inhaler**	Beclometasone Easyhaler®	**<1kg CO2e/ inhaler**
Budesonide / Formoterol	Symbicort®	**>35Kg C02e/ inhaler**	Symbicort Turbohaler (DPI)	**<1kg CO2e/ inhaler**

N.B: Where switching from MDI/BAI to DPI/SMI is clinically indicated, prescribers should adopt a 'benefits Vs risks' and a patient centred approach i.e.,

the right device for the right patient

Examples whereby switching to DPI/SMI would not be suitable:

Patients with limited/ insufficient inspiratory flow e.g., children and the elderly, severe and frequent exacerbators, frequent hospital admissions (patients with unstable conditions), patients with an acute inability to use DPIs, patients who do not wish to switch to a DPI, **stable patients with effective disease control whereby the risks of changing inhalers are thought to outweigh the benefits.**

SystemONE searches to help prioritise patients for review.

Report Results: IIF ES-01 - Consider low carbon emission non-salbutamol inhaler as on MDI inhaler

Subreport | Alerts Medications | Inhaler devices Corticosteroid: Drug
Clenil Modulite 100micrograms/dose inhaler (Chiesi Ltd)
Clenil Modulite 200micrograms/dose inhaler (Chiesi Ltd)
Clenil Modulite 250micrograms/dose inhaler (Chiesi Ltd)
Clenil Modulite 50micrograms/dose inhaler (Chiesi Ltd)
Fluticasone 125micrograms/dose inhaler CFC free
Fluticasone 50micrograms/dose inhaler CFC free
Kelhale 100micrograms/dose inhaler (Cipla EU Ltd)
Qvar 100 Autohaler (Teva UK Ltd)
Qvar 50 Autohaler (Teva UK Ltd)
Qvar 50 inhaler (Teva UK Ltd)
Clenil Modulite 100micrograms/dose inhaler (Chiesi Ltd)
Fostair 100micrograms/dose / 6micrograms/dose inhaler (Chiesi Ltd)
Fostair 200micrograms/dose / 6micrograms/dose inhaler (Chiesi Ltd)
Clenil Modulite 100micrograms/dose inhaler (Chiesi Ltd)
Clenil Modulite 50micrograms/dose inhaler (Chiesi Ltd)
Seretide 125 Evohaler (GlaxoSmithKline UK Ltd)
Seretide 250 Evohaler (GlaxoSmithKline UK Ltd)
Seretide 50 Evohaler (GlaxoSmithKline UK Ltd)
Symbicort 200micrograms/dose / 6micrograms/dose pressurised inhaler (AstraZeneca UK Ltd)
Trimbow 87micrograms/dose / 5micrograms/dose / 9micrograms/dose inhaler (Chiesi Ltd)

Report Results: IIF ES-02 - Consider low carbon intensity salbutamol inhaler (

Subreport | Alerts Medications | Salbutamol inhaler devices >11.1kg CO2e: Drug
Salbutamol 100micrograms/dose breath actuated inhaler CFC free
Salbutamol 100micrograms/dose inhaler CFC free
Ventolin 100micrograms/dose Evohaler (GlaxoSmithKline UK Ltd)