IPAC
International Pharmaceutical Aerosol Consortium

Key considerations on the environmental impact of inhalers

The International Pharmaceutical Aerosol Consortium (IPAC) is comprised of AstraZeneca, Boehringer Ingelheim, Chiesi Farmaceutici, GSK, Kindeva, Organon and Teva. IPAC's mission is to ensure that environmental policies relevant to inhaled therapies are patient-centric and appropriately balance both patient care and sustainability objectives. IPAC has developed these principles to help guide policy discussions and it reflects the lessons learned in our work on the Montreal Protocol on Substances that Deplete the Ozone Layer. Encouraging innovation and a multi-stakeholder approach should prove successful.

Patient-Centric approach is essential

No one device is suitable for all[1]

Reducing over-reliance on reliever therapy is a clinical goal and will reduce carbon impact[4]

Well-managed treatment, appropriate prescribing and device selection, together with ensuring the patient understands their own condition and can use device effectively, can all potentially help to improve patient outcomes through better control

Changes to patient treatment should be driven by clinical considerations and patient preference

Existing and ongoing innovative efforts offer significant promise for both patient care and environmental benefit and should be encouraged

Careful and effective communications with patients is absolutely critical to minimize confusion or concern

Patient-Centric approach is essential

Ensuring patient health, including maintaining a diverse range of therapeutic choices, is paramount. The patient should be at the heart of any change and effective management of disease should be the primary metric of success.

No one device is suitable for all[1]

All inhalation devices play an important role in patient care. These devices are used in a varying range of patient populations from paediatrics to elderly and across different disease states (mild to severe) and treatment of both asthma and COPD.

Devices deliver a range of inhaled medicines, which differ in their indication, dosing regimen and instructions for use. IPAC members and others invested significant resources to innovate HFC pMDIs, as well as dry powder inhalers (DPIs) and soft mist inhalers (SMIs), to meet the different therapeutic needs of patients.[2]

It is clinically inappropriate and counter-productive to the environmental aims to single out any device in environmental policies.

Reducing over-reliance on reliever therapy is a clinical goal and will reduce carbon impact[4]

In an optimal patient-centric approach, health care providers and pharmacists will support patients with inhaler device choice, educate patients on their prescribed treatments' aims, and encourage adherence to prescribed maintenance treatment and correct use of devices.

This approach will support good control, reducing reliance on reliever medications whilst empowering patients to seek healthcare advice should demand for their reliever medication increase.[2]

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IPAC believes that significant environmental progress can be achieved while simultaneously improving patient health by focusing on a holistic, outcomes-based approach to treatment for respiratory patients.[2] Adopting a patient-centric approach, policies should take into consideration all the touchpoints for potential action to reduce the environmental burden along the patient journey.

Careful and effective communications with patients is absolutely critical to minimise confusion or concern

Patients should feel confident in their clinically appropriate treatment plan. Patients should be informed about all aspects of their device and care, be empowered to make decisions and feel that their preferences are respected.

Changes to patient treatment should be driven by clinical considerations and patient preference

Selecting the medicine, device(s), and regimen that is most clinically appropriate for the patient – consistent with existing evidence-based treatment guidelines – is the first priority.[2] It is also critical to (i) ensure correct device technique to optimize drug delivery and (ii) facilitate a shared decision-making process with the patient and respect their choices which should promote adherence with the prescribed treatment regimen.[2]

Any changes to a patient's treatment should be clinically driven with appropriate support from a healthcare professional. Switching devices without patient input, sufficient use-technique training or a clear clinical rationale could potentially have a negative environmental impact as the patient may consequently use more of their pMDI reliever inhalers or may even result in an increase in visits to healthcare services.[3]

Well-managed treatment and device selection can potentially help to improve patient outcomes through better control. This is why IPAC believes that clinically-led decisions with the aim of greater control should underpin all aspects of the carbon reduction plan.

Existing and ongoing innovative efforts offer significant promise for both patient care and environmental benefit and should be encouraged

We recognize the environmental impact of HFCs as medical propellants, but we believe the environmental impact of propellants in inhaled therapies is a short to medium term issue that will be addressed if innovation is adequately supported.[2] As such, any steps to reduce the carbon impact should be proportional and appropriate. The innovation to DPIs, SMIs and HFC pMDIs drove a successful transition away from CFC MDIs and also offered other patient benefits (e.g., dose counters, combination therapies, and refillable containers).[2]

The broader availability of DPIs and SMIs and combination pMDIs over the last decade also likely limited the growth of HFC emissions by reducing the consumption of propellant-containing reliever inhalers. Several manufacturers of inhaled products continue to invest in new technologies, including next generation propellants, which will be near net "carbon zero."[5] Health regulatory authorities have an important role to play to ensure that review is timely. It is also important to undertake efforts in collaboration with national health systems to encourage uptake of both existing and future innovative, environmentally-friendly products available for patients.[2] In addition, smart digital inhalers are on the horizon, promising to drive greater usability and compliance, whether in MDIs, DPIs or SMIs, and these innovations are aimed at reducing carbon impact by improving disease management.[6] Sustainability is a multi-faceted issue in inhaler therapy and must not be focused on a single issue. All players must be supported to innovate, whether focused on innovations in MDIs, DPIs or SMIs.

References

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