Sustainability in Lung Health: What do Medical Students Know?

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Background/Aims:
Inhalers account for a significant portion of the healthcare sector's carbon emissions due to the hydrofluorocarbon propellants they contain. Starting patients on more sustainable inhaler options, such as dry powder inhalers, if clinically appropriate is an essential target to help us meet our global goals on sustainability.

This study aims to assess medical students' knowledge, perceptions and educational exposure regarding inhaler sustainability.

Methods:
This was a cross sectional study in the form of an online form sent to UK medical students. The form had 14 questions and there were 43 respondents.

Results:

Responses were collected from 43 medical students. Regarding the NHS's carbon footprint from inhalers, responses varied, with most students overestimating the impact. Thirty-six students (83.7%) had never encountered patients interested in sustainable inhaler options, and 35 (81.4%) reported that inhaler sustainability was not covered in their curriculum. Perceptions of the importance of inhaler sustainability varied: four rated it as 5/5, eight as 1/5, and the majority between 2/5 to 4/5. Only 6 (14%) felt knowledgeable about low-impact inhaler options, while 37 (86%) did not.

Regarding HFC awareness, 36 students (83.7%) knew what HFCs are, and 36 (83.7%) believed sustainability should influence inhaler selection. Twenty-nine students (67.4%) felt that transitioning to sustainable inhalers should be a priority, but 21 (48.8%) anticipated patient resistance. Most students (31, 72.1%) expressed a likelihood of incorporating inhaler sustainability discussions in their future practice, and 28 (65.1%) were interested in additional training on environmentally friendly inhaler options.

Conclusions:
The findings indicate a gap in medical students' knowledge of inhaler sustainability, despite a general awareness of the environmental impacts of HFCs. There is limited exposure to sustainability topics in current medical curricula, and many students express a desire for further training. Integrating inhaler sustainability into medical education could support future healthcare providers in making environmentally conscious choices and engaging patients in sustainability discussions. Improved knowledge and resources on sustainable inhaler options may help align clinical practice with NHS carbon reduction goals. This research underscores the importance of educational initiatives to bridge knowledge gaps and promote sustainable prescribing practices among future clinicians.