

Transcript Details

This is a transcript of an educational program. Details about the program and additional media formats for the program are accessible by visiting: <https://reachmd.com/programs/frontlines-copd/understanding-the-complex-link-between-pif-inhaler-choice-and-copd-outcomes/35545/>

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Understanding the Complex Link Between PIF, Inhaler Choice, and COPD Outcomes

Announcer:

You're listening to *On the Frontlines of COPD* on ReachMD. On this episode, we'll hear from Dr. Jill Ohar, who's a Professor of Pulmonary, Critical Care, Allergy, and Immunologic Diseases at Wake Forest University School of Medicine. She'll be discussing the link between suboptimal peak inspiratory flow and COPD outcomes. Here's Dr. Ohar now.

Dr. Ohar:

I think there are several disputes currently in the literature. First off, we're not even sure what a suboptimal peak inspiratory flow is. All the measurements for peak inspiratory flow have been made in artificial lung models, so they've been measured *in vitro*, so we have very little information about optimal drug delivery and PIF and that relationship *in vivo*. So the first problem is, what really is a clinically relevant suboptimal PIF? And I think a lot of the determination of that, at least from my perspective, would be what PIFs are associated with poor clinical outcomes? return to the hospital? recurrent hospitalizations? multiple hospital days? CAT scores? Mortality? So I think investigations into that area relative to PIF measurements may provide an additional insight. Now, these aren't as clean as using a radionucleotide-tagged drug in a dry powder inhaler and then scanning patients by scintillography to determine where the drug delivered, but I think that it's at least a leap greater than we are now.

Now, certainly, all of those patient-related variables—mortality, hospital days, readmissions, and CAT—are also affected by many other patient-related variables, such as their size, age, sex, underlying or baseline FEV1, and their comorbidities. So these are things that will have to be explored, but I think it's important to know that at this point, there seems to be an association with readmission and an association with mortality, and so I think that enhanced attention to PIF, especially in a patient who's hospitalized for a COPD exacerbation, would be important.

Furthermore, I think increased awareness of appropriate inhaler technique is important. People always ask me, "What's the best inhaler device?" and I go, "There is no best. Each is outstanding in its own right." You know, metered dose inhalers circumvent the need for an adequate PIF, but they have many more steps and coordination required. A dry powder inhaler is wonderful because it doesn't require that coordination and doesn't require all those steps. However, if you're not strong enough to use it, it becomes problematic. A Soft Mist, to some extent, obviates those issues, but coordination is still required. Certainly, nebulizer treatment obviates all of those issues, but there's the burden of setting it up, cleaning it, etc. So there's no ideal device, but clinicians need to be more aware of the need to, #1, instruct patients on their device, and #2, match the device to the patient's own unique characteristics.

Announcer:

That was Dr. Jill Ohar talking about the link between suboptimal peak inspiratory flow and COPD outcomes. To access this and other episodes in our series, visit *On the Frontlines of COPD* on ReachMD.com, where you can Be Part of the Knowledge. Thanks for listening!