



## Competency in Aerosol Therapy to Manage Patients with both Acute and Chronic Respiratory Disease

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### Introduction

Respiratory therapists continue to be the experts when it comes to the art and science of aerosol therapy. With the rapidly changing field of aerosol medications and delivery systems, it is imperative that we not only share this expertise with patients but also other members of the health care delivery team across the continuum of care [1]. With a renewed focus on wellness and prevention within the U.S. health care system and a determined focus to minimize cost and waste, the choice of appropriate respiratory medications and delivery devices makes selection of both the drug and optimum delivery device even more critical[2]. How does a therapeutic intervention around for centuries still combine the art with science in the context of aerosol therapy? The science component includes many different aspects such as pharmacology, cardiopulmonary anatomy and physiology, physics, and thorough understanding of the different aerosol delivery technologies on the market today. In order to claim expertise in the science of aerosol therapy and optimize it for patients, the respiratory therapist must have concrete knowledge and understanding of the numerous drug formulations, their mode of action, and an understanding of the respiratory conditions where the drug and delivery is recommended and supported by the scientific evidence[3]. While the art of aerosol delivery is much more abstract than the science, it is as equally important to the appropriate delivery of respiratory medications for optimal outcomes. For aerosol therapy, the interaction between technology and human behaviour is where art comes into play. There is ample scientific evidence of sub-optimal or ineffective use of aerosols when self-administered in large part due to lack of knowledge about proper technique by patients [4]. All too often, patients do not receive optimum benefit from their prescribed metered-dose inhalers, dry-powder inhalers, and nebulizers simply because they are not adequately trained or evaluated on their proper use. The combination of the right medication and the most optimal delivery device with the patient's cognitive and physical abilities is the critical juncture where science intersects with art. For aerosol therapy to be effective, the appropriate delivery system for the medication must be matched to the patient's ability to use it correctly. The art of aerosol therapy does indeed arise from the science [5]. When these two different, but synergistic components of medicine do not properly align, patient adherence decreases. Medication is wasted. Minimal patient benefit is derived. Because aerosol therapy is integral to our scope of practice and because we are considered the experts in this area, we have a professional obligation to our patients to continue our learning and competencies in the delivery of aerosolized medicines [6]. Respiratory therapists must take advantage of this opportunity to reinforce their value by updating their knowledge of aerosol delivery systems and combining that knowledge with effective assessment of patients requiring this therapy. Recommending an appropriate delivery system tailored specifically to the patient's abilities is part of that assessment. This guide will provide you the opportunity to advance your knowledge and expertise in aerosol delivery [7]. Mastery of both the art and science of aerosol delivery can have a profound impact on appropriately matching medications and delivery devices to optimize your patients' clinical outcomes [8]. You will also contribute to more

cost-effective use of healthcare system resources [9]. The fourth edition of this Aerosol Guide delivers detailed and comprehensive information that, when combined with your dedication and commitment to be the professional experts in this important area, will empower you to provide guidance to your physician, nurse, and pharmacist colleagues but, most importantly, to your patients.

### Acknowledgement

None

### Conflict of Interest

None

### References

1. Pisarski K (2019) The global burden of disease of zoonotic parasitic diseases: top 5 contenders for priority consideration. *Trop Med Infect Dis EU* 4:1-44.
2. Kahn LH (2006) Confronting zoonoses, linking human and veterinary medicine. *Emerg Infect Dis US* 12:556-561.
3. Bidaisee S, Macpherson CNL (2014) Zoonoses and one health: a review of the literature. *J Parasitol* 2014:1-8.
4. Cooper GS, Parks CG (2004) Occupational and environmental exposures as risk factors for systemic lupus erythematosus. *Curr Rheumatol Rep EU* 6:367-374.
5. Parks CG, Santos ASE, Barbhaiya M, Costenbader KH (2017) Understanding the role of environmental factors in the development of systemic lupus erythematosus. *Best Pract Res Clin Rheumatol EU* 31:306-320.
6. M Barbhaiya, KH Costenbader (2016) Environmental exposures and the development of systemic lupus erythematosus. *Curr Opin Rheumatol US* 28:497-505.
7. Gergianaki I, Bortoluzzi A, Bertias G (2018) Update on the epidemiology, risk factors, and disease outcomes of systemic lupus erythematosus. *Best Pract Res Clin Rheumatol EU* 32:188-205.
8. Cunningham AA, Daszak P, Wood JLN (2017) One Health, emerging infectious diseases and wildlife: two decades of progress? *Phil Trans UK* 372:1-8.
9. Sue LJ (2004) Zoonotic poxvirus infections in humans. *Curr Opin Infect Dis MN* 17:81-90.

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