Obesity and COVID-19:

What you need to know

First and foremost, thank you



for your courageous and unyielding dedication to keeping your communities healthy during this difficult time.

We know that this pandemic presents many challenges and uncertainties when it comes to providing optimal care for your patients. That is why we want to provide you with as much information as we can about COVID-19 and obesity.

The role of obesity in the COVID-19 pandemic cannot be ignored¹:

41.7%

In a study published in *JAMA*, **41.7%** of the 5,700 patients hospitalized for COVID-19 had a **BMI** ≥**30**^{1,a}

33.8%

The same study showed that **33.8%** of patients hospitalized for COVID-19 had diabetes, one of the most common comorbidities of obesity^{1,a}

~6x

Another study showed that obesity increases the risk for type 2 diabetes by at least **~6x** irrespective of genetic risk^{2,b}

The Centers for Disease Control and Prevention (CDC) states that people of any age with certain underlying medical conditions, such as severe obesity (BMI ≥40) or diabetes, are at higher risk for severe illness from COVID-19³

Obesity is an established risk factor for H1N1 and other influenza infections⁴⁻⁶

Because COVID-19 is a novel respiratory virus, data are still emerging regarding the risk factors for severe disease; however, information connecting obesity and influenza viruses is well documented³⁻⁵:



61% of individuals who died from H1N1 in 2009 had a BMI ≥304,c

Another study showed that higher mortality from H1N1 in people with obesity was attributed to defects in certain immune cells.⁷



Obesity increases risk for hospitalization in adults regardless of viral pathogen status^{8,d} Adults who have influenza and severe obesity have significantly increased odds of hospitalization.⁸

It can be easy to think that long-term management of obesity may be less relevant during COVID-19, but it is more critical than ever for patients with obesity to get the care they need.^{1,3}

How might this information about COVID-19 impact your treatment approach for patients with obesity?



^{*}The study monitored patients admitted to any of 12 acute care hospitals in Northwell Health, the largest academic health system in New York, between March 1, 2020, and April 4, 2020.

The case-cohort study within the Danish Diet, Cancer and Health cohort included 4,729 individuals who developed type 2 diabetes during a median 14.7 years of follow-up, and a randomly selected cohort sample of 5,402 individuals. The study analyzed demographic and dinical characteristics of 534 adult California residents hospitalized with 2009 H1N1 infection between April 20, 2009, and August 11, 2009, using public health surveillance data.

The observational cohort study included 4,778 patients with influenza-like illness across 6 hospitals in Mexico between April 2010 and March 2014.

Novo Nordisk is here for you and your patients



Our key priority is to support you and safeguard the continued supply of our medications for your patients with obesity

We also want to make sure you continue to have access to information and assistance for your patients:

- Obesity Action Coalition (OAC) recognizes that with social distancing recommendations, it can be more important than ever to surround people living with obesity with support and encouragement. OAC's education and resources can be found **here**
- The CDC provides guidance for protection against virus exposure and proper steps to be taken if symptoms arise. To learn more, patients can visit **cdc.gov**

For points of view regarding COVID-19 and obesity from organizations around the world, please visit:

- World Obesity Federation
- The Obesity Society

We also encourage you to use your PubMed account to create alerts for keywords such as "obesity" and "COVID-19" so that you can receive emails when publications about these topics are released. You can follow **this step-by-step guide from NIH** to set up alerts.

Novo Nordisk would like to thank you again for your efforts during this global health crisis. Should you need samples for your patients, you can go to ObesityProductSamples.com and have them sent straight to your office. You also have access to educational materials for you and your patients and a tool to check formulary coverage for all Novo Nordisk products at NovoMedLink.com.

For more information and resources about obesity care, please visit RethinkObesity.com

References: 1. Richardson S, Hirsch JS, Narasimhan M, Crawford JM, McGinn T, Davidson KW, and the Northwell COVID-19 Research Consortium. Presenting characteristics, comorbidities, and outcomes among 5700 patients hospitalized with COVID-19 in the New York City area [published online ahead of print April 22, 2020]. *JAMA*. doi:10.1001/jama.2020.6775. 2. Schnurr TM, Jakupović H, Carrasquilla GD, et al. Obesity, unfavourable lifestyle and genetic risk of type 2 diabetes: a case-cohort study [published online ahead of print April 15, 2020]. *Diabetologia*. doi:10.1007/s00125-020-05140-5. 3. Coronavirus disease 2019 (COVID-19): people who are at higher risk for severe illness. The Centers for Disease Control and Prevention website. https://www.cdc.gov/coronavirus/2019-ncov/need-extra-precautions/people-at-higher-risk.html. Accessed May 4, 2020. 4. Louie JK, Acosta M, Samuel MC, et al. A novel risk factor for a novel virus: obesity and 2009 pandemic influenza A (H1N1). *Clin Infect Dis*. 2011;52(3):301-312. 5. Fezeu L, Julia C, Henegar A, et al. Obesity is associated with higher risk of intensive care unit admission and death in influenza A (H1N1) patients: a systematic review and meta-analysis. *Obes Rev*. 2011;12(8):653-659. 6. Kwong JC, Campitelli MA, Rosella LC. Obesity and respiratory hospitalizations during influenza seasons in Ontario, Canada: a cohort study. *Clin Infect Dis*. 2011;53(5):413-421. 7. Paich HA, Sheridan PA, Handy J, et al. Overweight and obese adult humans have a defective cellular immune response to pandemic H1N1 influenza A virus. *Obesity (Silver Spring)*. 2013;21(11):2377-2386. 8. Moser JS, Galindo-Fraga A, Ortiz-Hernández AA, et al. Underweight, overweight, and obesity as independent risk factors for hospitalization in adults and children from influenza and other respiratory viruses. *Influenza Other Respir Viruses*. 2019;13(1):3-9.

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