Viral Spread to Health Care Staff
Covering Tracheostomies Reduces Transmission to Healthcare Workers

In a recent study, patients undergoing cancer treatment who received a COVID-19 mRNA vaccine produced antibodies at a slower rate than people without cancer, but most were seropositive after the second dose. The results, published in JAMA Oncology, reinforce the recommendation to prioritize patients with cancer for vaccination against SARS-CoV-2.

The study, conducted in Israel, involved 232 patients with cancer with an average age of 66 years and a healthy, age–matched control group of 261 health care workers, all of whom received Pfizer-BioNTech’s SARS-CoV-2 vaccine.

After the first dose, 84% of the control group was seropositive for SARS-CoV-2 antibodies compared with 29% of the patients with cancer. After the second dose, however, 86% of the patients with cancer were seropositive. Two COVID-19 cases occurred in the patient group immediately after the first dose.

Real-world data are needed to evaluate the vaccine’s long-term efficacy among patients receiving cancer treatment, the investigators wrote.

Covering Tracheostomies Reduces Viral Spread to Health Care Staff

Covering a patient’s tracheostomy with a commercially available heat moisture exchanger (HME) and a surgical mask is the most effective strategy to decrease aerosolized particles and reduce the risk of viral transmission to health care workers, a study suggests. Although the SARS-CoV-2 pandemic prompted the work, the findings apply to preventing viral spread from emerging diseases during aerosol-generating procedures, the researchers wrote in JAMA Otolaryngology–Head & Neck Surgery.

The investigators used an optical particle counter to measure the real-time production of aerosols during simulated tracheostomy surgery and care using manikins and pigs. They also used fluorescent dye to see cough particles spread onto the surgical field during swine tracheostomy, and they compared 6 tracheostomy coverings with no covering to quantify the reduction in aerosolized particles.

Researchers included coughing, airway humidification, and suctioning, produced substantial aerosolized particles. An HME, a surgical mask, a humidification mask, a polyester gaiter, and a cotton mask all reduced the concentration of aerosolized particles. HME and surgical masks were the most effective coverings and combining them reduced particle concentration by nearly 98%.

Novel Oral Drug Rapidly Treats Postpartum Depression

Antidepressants are the current pharmacotherapy go-to for postpartum depression (PPD) despite their slow action and frequent failure to induce remission. Now, a new PPD treatment option may be on the horizon. In a recent phase 3 trial, women with PPD had rapid reductions in depression symptoms after a 2-week course of daily oral zuranolone, a novel neuroactive steroid γ-aminobutyric acid receptor–positive allosteric modulator.

The trial’s 153 participants with PPD at 27 US clinical sites had given birth within the past 6 months. They were randomly assigned to receive 30 mg of zuranolone or placebo daily for 2 weeks. The zuranolone group reported fewer depression symptoms at day 15, a clinically meaningful improvement that was observed by day 3 and sustained through day 45. They also had sustained improvements in anxiety and in global and maternal functioning compared with the placebo group, the researchers reported in JAMA Psychiatry.

Zuranolone has a similar mechanism of action as brexanolone injection, the first drug approved specifically for PPD. Brexanolone is an infusion that is delivered continuously over 60 hours at certified health care facilities and has serious risks of excessive sedation or sudden loss of consciousness during administration. In contrast, oral zuranolone was well tolerated in the outpatient trial, with mostly mild or moderate adverse events.

Guidelines for Lipid-Lowering Therapy Intensification Rarely Followed

A multisite registry study involving 5000 US patients showed that clinicians often don’t treat patients with atherosclerotic cardiovascular disease according to recommendations for intensive medication if low-density lipoprotein cholesterol (LDL-C) levels are 70 mg/dL or more.

The patients were enrolled in 1 of 3 cohorts between December 2016 and July 2018. One group already received a proprotein convertase subtilisin/kexin type 9 inhibitor (PCSK9i). The other 2 groups, which didn’t receive a PCSK9i, had LDL-C levels of 70 to 99 mg/dL or 100 mg/dL or more.

After 2 years, two-thirds of patients had LDL-C levels higher than 70 mg/dL, yet physicians had prescribed more intensive therapy for only 17.1% of patients. Of this group, 83.7% received a statin, 14.3% received ezetimibe, and 13.5% received a PCSK9i. Most of the PCSK9i cohort were still taking the medication at 2 years, and 12.5% received more intensive therapy.

The researchers found that only about one-fifth of the cohort with baseline levels of 100 mg/dL or more achieved LDL-C levels less than 70 mg/dL. About a third of the group with baseline levels of 70 to 99 mg/dL and about half of the PCSK9i cohort reached this recommended target.

The investigators also noted lower rates of more intensive lipid-lowering therapies among patients who were non-White or Hispanic. Further efforts are needed to achieve optimal cholesterol management, the authors wrote in JAMA Cardiology.

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Note: Source references are available through embedded hyperlinks in the article text online.