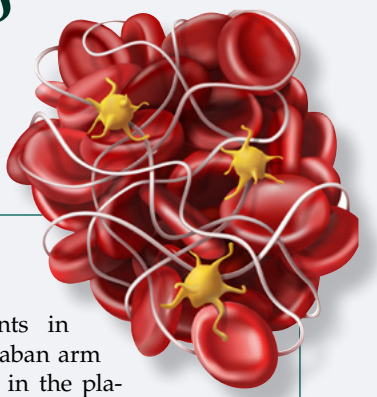
Inpatient*Insights*

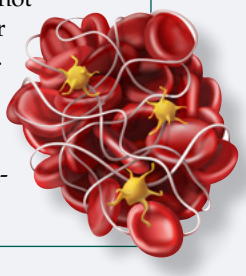


Extended rivaroxaban treatment could reduce risk of recurrent venous thromboembolism

The optimal duration of treatment for symptomatic isolated distal deep vein thrombosis (DVT) remains controversial. A recent study published on November 23, 2022, in *the BMJ* used a randomized, double blind, placebo-controlled clinical trial at 28 outpatient clinics in Italy specializing in venous thromboembolism to compare two different treatment durations of rivaroxaban in patients with symptomatic isolated distal DVT. After receiving standard dose rivaroxaban for 6 weeks, participants were randomly assigned to receive rivaroxaban 20 mg or placebo once daily for an additional 6 weeks. The primary outcome was recurrent venous thromboembolism during follow up, defined as the composite of progression of isolated distal DVT, recurrent isolated distal DVT, proximal DVT, symptomatic pulmonary embolism, or fatal pulmonary embolism.

The primary outcome occurred in 23 (11%) patients in the rivaroxaban arm and 39 (19%) in the placebo arm while recurrent isolated distal DVT occurred in 16 (8%) patients in the rivaroxaban arm and 31 (15%) in the placebo arm. Proximal DVT or pulmonary embolism occurred in 7 (3%) patients in the rivaroxaban arm and 8 (4%) in the placebo arm. No major bleeding events occurred.

The researchers noted that their findings do not apply to patients with cancer-associated isolated distal DVT, who were excluded from the study, and should not be extrapolated to other anticoagulant treatments. Additional investigation is needed to identify low-risk patients who may not require anticoagulant treatment. ■



Adding oral antimicrobial prophylaxis decreases surgical site infection

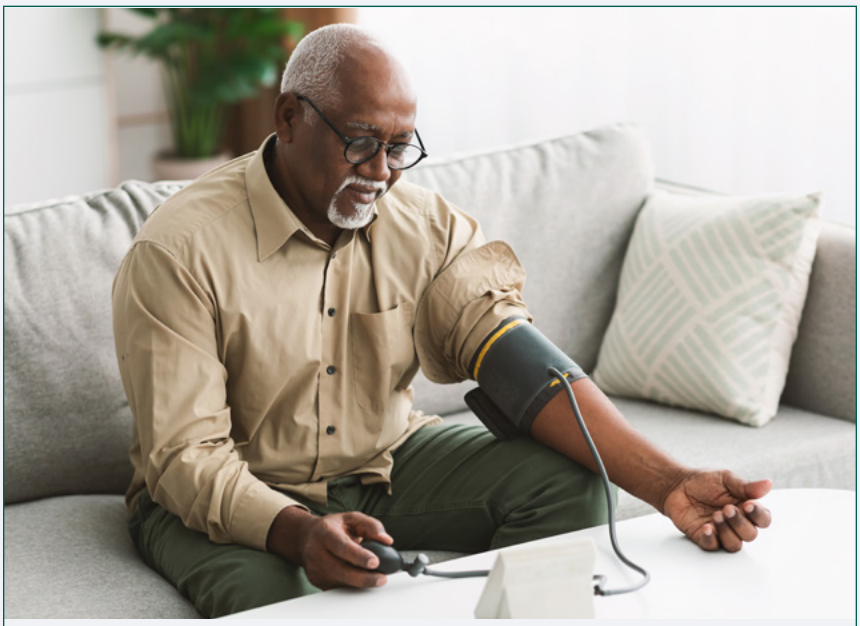
Surgical site infection is among the most common hospital infections, and patients who undergo colorectal surgery are particularly at risk, with reported incidence rates of up to 26%. In a paper published in *the BMJ* on November 3, 2022, members of the COMBINE study group, representing 11 university and non-university hospitals in France, investigated the ability of oral antimicrobial prophylaxis as an adjunct to the standard I.V. antibiotic prophylaxis to reduce surgical site infections after elective colorectal surgery.

The multicenter, randomized, double blind, placebo-controlled trial involved 926 adult patients scheduled for elective colorectal surgery in French hospitals between May 25, 2016, and August 8, 2019. Patients were randomized to receive either a single 1-g dose of ornidazole or a placebo orally 12 hours before surgery in addition to the I.V. antimicrobial prophylaxis.

The primary outcome was the proportion of patients with surgical site infection within 30 days after surgery. Secondary outcomes included individual types of surgical site infections and major postoperative complications (Clavien-Dindo classification grade 3 or higher) within 30 days after surgery.

Surgical site infection within 30 days after surgery occurred in 60 (13%) of the patients in the oral prophylaxis group and in 100 (22%) of patients in the placebo group. The proportion of patients with deep infections was 4.8% in the oral prophylaxis group and 8.0% in the placebo group, while the proportion of patients with organ space infections was 5.0% in the oral prophylaxis group and 8.4% in the placebo group. Major postoperative complications occurred in 9.1% patients in the oral prophylaxis group and 13.6% in the placebo group.

The authors concluded that compared with those receiving a placebo, participants who received oral prophylaxis had a 40% lower relative risk of surgical site infection and lower rates of other secondary outcomes, including a 33% lower relative risk of major postoperative surgical complications. They believe that their findings suggest that the effect of oral prophylaxis versus placebo was attributed primarily to a reduction in the rates of deep and organ space surgical site infections. ■



Baxdrostat shows promise for treatment-resistant hypertension

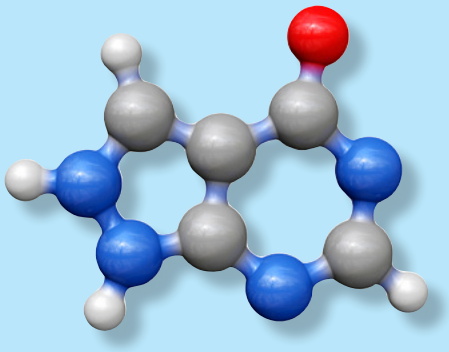
Treatment-resistant hypertension, defined as elevated BP despite concurrent use of at least 3 antihypertensive drugs of different classes, including a diuretic, affects an increasing number of patients each year. These patients have a substantially increased risk of cardiovascular adverse events.

According to the authors of a recent paper in the *New England Journal of Medicine*, aldosterone synthase inhibitors could target treatment resistance by suppressing hormone synthesis. To explore this avenue of treatment, the researchers examined the efficacy and safety of baxdrostat in patients with treatment-resistant hypertension.

In the multicenter, placebo-controlled trial, patients who had treatment-resistant hypertension, with BP of 130/80 mm Hg or higher, and who were receiving stable doses of at least 3 antihypertensive agents, including a diuretic, were randomly assigned to receive baxdrostat (0.5 mg, 1 mg, or 2 mg) once daily for 12 weeks or a placebo. The primary endpoint was the change in systolic BP from baseline to week 12 in each baxdrostat group as compared with the placebo group.

Results of the study, published online on November 7, 2022, indicated dose-dependent changes in systolic BP of –20.3 mm Hg, –17.5 mm Hg, –12.1 mm Hg, and –9.4 mm Hg in the 2-mg, 1-mg, 0.5-mg, and placebo groups, respectively. No deaths occurred during the trial, no serious adverse events were attributed by the investigators to baxdrostat, and there were no instances of adrenocortical insufficiency.

The authors concluded that further phase 3 trials involving more patients over a longer period are needed to confirm that the selective action of baxdrostat may avert the risk of inducing adrenal insufficiency and the loss of BP–lowering efficacy that can result from the accumulation of mineralocorticoid receptor–activating steroid precursors seen with first-generation aldosterone synthase inhibitors. ■



Lower initial doses of allopurinol could be beneficial for older adults with CKD

Allopurinol, a xanthine oxidase inhibitor, decreases the amount of uric acid produced by the body, is used to treat gout, kidney stones, and high uric acid levels caused by cancer medicines. According to a recent study published in the December issue of the *American Journal of Kidney Diseases*, initial doses of allopurinol should be started at low doses in patients with chronic kidney disease (CKD) to avoid adverse effects.

The researchers examined the risk of severe cutaneous reactions in older adults with CKD who were newly prescribed allopurinol at varied doses using a population-based cohort study with linked health care databases. They studied the records of more than 47,000 patients in Ontario, Canada between 2008 and 2019 who were more than 66 years old and had an estimated glomerular filtration rate of <60 mL/min/1.73 m^2, and who were new users of allopurinol.

The primary outcome was a hospital visit with a severe cutaneous reaction within 180 days of starting allopurinol. Secondary outcomes included all-cause hospitalization and all-cause mortality.

The results of the study showed that 55% of the studied patients started allopurinol at >100 mg/day, which was associated with an increased risk of a severe cutaneous reaction as well as an increased risk of all-cause hospitalization but not all-cause mortality.

The authors concluded that older patients with CKD were twice as likely to visit a hospital with a severe cutaneous reaction within 180 days if their initial dose was more than 100 mg/day and suggest that these patients should be started at low doses of allopurinol. ■