Physical Inactivity Linked to Severe COVID-19 Outcomes:
Health Care Systems Should Adopt Physical Activity Vital Sign

A study of nearly 50,000 COVID-19 patients from Kaiser Permanente Southern California showed physical inactivity as a stronger risk factor for severe COVID-19 than heart disease, cancer, diabetes, hypertension, smoking and obesity. Patients representing a diverse sample of adults were diagnosed with COVID-19 and self-reported physical activity during outpatient visits over the prior two years. The results were adjusted for demographics, along with the CDC-identified risk factors for severe COVID-19, and show:

• Being consistently inactive (0–10 min/week of physical activity) more than doubled the odds of hospitalization.

• Patients who were consistently inactive had 1.73 times greater odds of ICU admission.

• The odds for death were 2.49 times greater for patients who were consistently inactive.

• Other than being over age 60 or having a history of organ transplant, being consistently inactive conferred the highest risk for death from COVID-19.

Even patients who did some physical activity had lower odds for severe COVID-19 when compared to those who were regularly active, suggesting that any amount of physical activity has benefit. Other studies have confirmed these findings.

What Does this Mean for Health Care?

Health care systems can take a few simple steps to more easily identify and support physically inactive patients and ultimately help improve individual and population health.

Integrate a simple, validated two-question physical activity vital sign (PAVS) into the electronic health record and outpatient clinical workflow to risk-stratify patients into those who need physical activity support.

Encourage patients to follow a “Sit Less. Move More.” approach recommended by the Physical Activity Guidelines for Americans 2018. Data shows that all physical activity counts – even short bouts of less than 10 minutes a day.

Refer patients to community programs, facilities and professionals to help them become more physically active.

Use this Health Care Provider Action Guide for effective tools to integrate physical activity into daily practice.

Interventions to help patients become more physically active, even in a modest way, will relieve the burden of COVID-19 care and reduce the burden of costly chronic medical conditions.

Contact eim@acsm.org if you would like more information.