Daily spirometry can give early warning of pneumonia in AML

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(HealthDay)—For patients with acute myeloid leukemia (AML), patient-performed daily spirometry (forced expiratory volume in one second [FEV1]) is effective for early identification of pneumonia, according to a study published online Dec. 10 in the *American Journal of Hematology*.

Tom Møller, Ph.D., M.P.H., R.N., from the University Hospitals Centre for Health Research in Copenhagen, Denmark, and colleagues examined the applicability of patient-performed daily spirometry as an early warning tool and the effectiveness of positive expiratory pressure (PEP) in preventing pneumonia in a cohort of 80 AML patients receiving induction chemotherapy. Patients were randomized to an intervention group, which received supervised patient education in spirometry and daily use of lung ventilation training with a PEP flute, or to a control group (education only).

The researchers detected 25 incidences of pneumonia among 23 patients (six interventions, 17 controls), representing a prevalence of 28.75 percent during 5,420 days of observation. Incidence of pneumonia differed significantly between the intervention and control groups (2.17 versus 6.52 per 1,000 days; P = 0.021). High sensitivity and specificity on pneumonia development was seen at a cross point at 80 to 76 percent of the personal FEV1 reference value.

"We suggest that strategic patient education in the use of spirometry and PEP should be part of standard of care for AML patients undergoing induction chemotherapy," the authors write.

More information: Abstract
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