**Supplemental Digital Content 6.** The group mean and STD of ΔHU (A) and Jacobian (B) separated the three clusters as tissue compartments undergoing distinct responses to the prone posture (ventral loss of aeration and tissue volume, dorsal increase of aeration and volume, and reduced response in the mid-lung). Values of CT density in the supine position (C) were more heterogeneous between clusters than in the prone position (D).

