

Supplementary Table 1. Demographics and clinical courses of the patients with changes in perception between day 1 and day 3

Day 1	Day 3	No.	Sex/age (yr)	Underlying disease	Reason for ICU admission	ICU course between day 1 and day 3
Non-beneficial admission	Beneficial admission	1	M/58	Amyopathic dermatomyositis-related organizing pneumonia Bronchiectasis	Acute respiratory failure d/t pneumonia with RV failure Septic shock d/t perianal abscess	Venous-arterial ECMO d/t deteriorated RV failure → considering lung transplantation
		2	M/73	AML with persistent disease state after study chemotherapy		Clinically improving state with reduced dose of vasopressor
Beneficial admission	Non-beneficial admission	1	M/75	Esophageal cancer (surgery refused) s/p induction chemotherapy s/p definite concurrent chemotherapy 3 months ago → stable disease with ECOG PS 3 pneumonia twice within the recent 2 months	Acute respiratory failure d/t asphyxia with GI bleeding	Increased oxygen requirement with severe muscle weakness
		2	M/57	Neuroendocrine tumor with tracheal invasion, cardiac, liver metastasis with SVC syndrome	For procedure (tracheal stent insertion with ECMO therapy)	Successful procedure and weaning off ECMO but with progressive tumor lysis syndrome and multi-organ failure
		3	M/73	AML, M0 s/p 2nd chemotherapy 5 days ago ECOG PS 0 COPD Hypertension Gout	Acute respiratory failure with septic shock d/t aspiration pneumonia with colitis during chemotherapy	Progressive septic shock Severe hypoxemia Severe intra-abdominal hypertension Multi-organ failure
		4	M/80	COPD Atrial fibrillation Hypertension History of pulmonary tuberculosis History of CABG at 10 years ago	Acute respiratory failure d/t pneumonia with COPD aggravation	Deteriorated lung compliance Suspected obstructive pneumonitis d/t lung cancer (higher possibility of the presence of lung cancer)

ICU: intensive care unit; RV: right ventricle; ECMO: extracorporeal membrane oxygenation; AML: acute myeloid leukemia; ECOG PS: Eastern Cooperative Oncology Group performance status; GI: gastrointestinal; SVC: superior vena cava; COPD: chronic obstructive disease; CABG: coronary artery bypass graft.