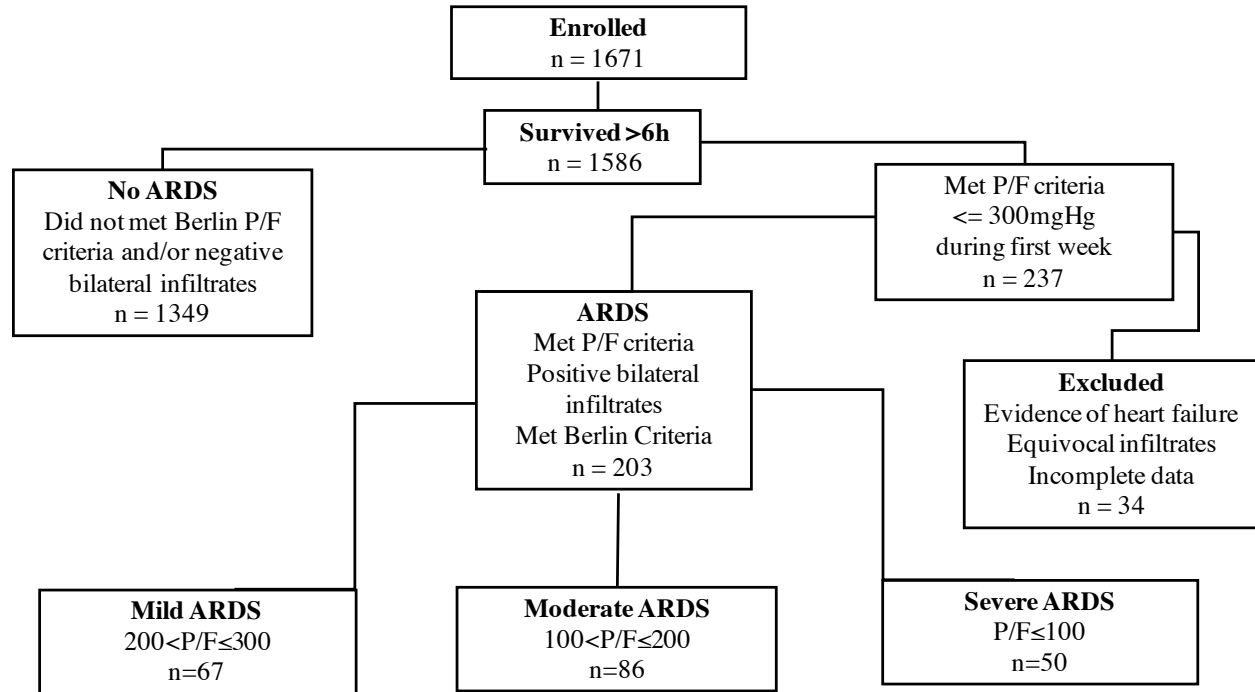


Supplemental Digital Content 1: Study Design Figure



Flowchart of study enrollment. ARDS (Acute Respiratory Distress Syndrome); PaO₂:FiO₂ ratio (P/F) ratio of ≤ 300 mgHg; ARDS severity classified by the degree of hypoxemia: mild ($200 < P/F \leq 300$), moderate ($100 < P/F \leq 200$), and severe ($P/F \leq 100$).

Supplemental Digital Content 2. All intubated subjects without and with ARDS

	No ARDS	ARDS	p-value
	n=677 (77%)	n=203 (23%)	
Age (years)	39 (27-55)	41 (27-54)	0.24
Male gender (%)	80%	83%	0.37
BMI (kg/m²)	27 +/- 5	27 +/- 6	0.05
Blunt mechanism (%)	72%	84%	<0.01
Uninsured (%)	30%	23%	0.06
ED GCS	9 (4-14)	8 (3-14)	0.07
Admit SBP <90 mmHg (%)	11%	13%	0.35
Admit HR >110 BPM (%)	27%	44%	<0.01
ISS	20 (9-29)	30 (25-41)	<0.01
Head AIS	3 (0-5)	4 (2-5)	<0.01
Chest AIS	0 (0-3)	3 (0-4)	<0.01
Any chest injury (AIS>0), n (%)	245 (36%)	123 (61%)	<0.01
Any severe chest injury (AIS≥3), n (%)	176 (26%)	103 (51%)	<0.01
Any rib fracture(s), n (%)	172 (25%)	92 (45%)	<0.01
Intubated on admission day, n (%)	629 (93%)	195 (96%)	0.14
Any TBI, n (%)	324 (48%)	137 (67%)	<0.01
Admit base excess	-4.3 +/- 5.9	-6.8 +/- 6.2	<0.01
Any transfusion within 6h, n (%)	296 (44%)	137 (69%)	<0.01
Any transfusion within 24h, n (%)	336 (50%)	148 (74%)	<0.01

* Data are mean +/- SD, median (inter-quartile range), or n (%) as indicated. Data for skewed variables reported as median with inter-quartile ranges. Injury Severity Score (ISS); Abbreviated injury score (AIS), traumatic brain injury (TBI)

Supplemental Digital Content 3:**Hospital Charges & Outcomes for all intubated patients without and with ARDS**

	No ARDS n=677 (77%)	ARDS n=203 (13%)	p-value
Total hospital charge (\$)	175,058 (93,892-390,286)	450,888 (224,901-827,5290)	<0.01
Charge per day (\$)	24,298 (17,797-34,338)	24,446 (14,989-34,044)	0.16
Standard total hospital charge (\$)	193,176 (72,441-434,646)	434,646 (21,7323-990027)	<0.01
Ventilator free days	25 (10-26)	3 (0-17)	<0.01
ICU days	3 (2-7)	14 (6-23)	<0.01
Hospital days	8 (3-18)	18 (9-41)	<0.01
MOF (%)	6%	41%	<0.01
Mortality at 28 days (%)	19%	33%	<0.01

* Data are mean +/- SD, median (inter-quartile range), or n (%) as indicated. Data for skewed variables reported as median with inter-quartile ranges. Ventilator free days are counted for the first 28 days of hospitalization. Subjects who expired received 0 ventilator free days. Intensive care unit (ICU); multiple organ failure (MOF).