	Random sequence generation	Allocation concealment	Blinding	Incomplete outcome data	Baseline characteristics
Oguz 2013	Random number list generated using Excel software L	Not described U	Not described U	Not described U	Imbalance in baseline characteristic (gender, smoking, chronic disease) and time of circuit changes H
Boots 2006	Predetermined list generated from a list of random numbers. L	Not described U	Blinding only CXR U	No lost to follow-up L	Imbalance in baseline characteristics (Length of MV) H
Lorente 2006	Random number list generated using Excel software L	Not described U	Not described U	16/120 lost to follow-up L	No imbalance in baseline characteristics L
Lacherade 2005	Computer generated randomization L	Not described U	Not described U	No lost to follow-up L	Imbalance in baseline characteristics (P/F ratio and immunocompromised pts) H
Diaz 2002	Random number list L	Sealed and consecutively numbered L	Not described U	No lost follow up H	Balance in baseline characteristics L
Memish 2001	Group balance was maintained within each block of 20 L	The randomization record was kept with the hospital biostatistician L	Not described U	155/398 lost follow up H	Imbalance in baseline characteristics (neurologic disease) H
Kollef 1998	Not described U	Opaque envelopes L	Blinding assessment L	Not described U	Balance in baseline characteristics L
Lucchetti 1998	Not described U	Not described U	Not described U	Not described U	Not described U

Boots 1997	Not described U	Not described U	Not described U	No lost to follow-up L	Balance in baseline characteristics L
Hurni 1997	Not described U	Not described U	Not described U	50% lost to follow-up H	Imbalance in baseline characteristic(age) and time of circuit changes H
Kirton 1997	Randomization was by a random number generated from a personal computer L	Not described U	Laboratory and chest radiograph interpretation were blinded L	6/280 lost to follow up L	Not described U
Dreyfuss 1995	Not described U	Not described U	Not described U	36/164 lost to follow up L	Balance in baseline characteristics L
Branson 1996	Randomization was accomplished using the last digit in the patient's medical record number --- patients with an odd medical record number received an HCH and those with an even number received a heated humidifier H	Randomization was accomplished at the Bedside H	Not described U	Number enrolled not stated U	Balance in baseline characteristics L
Villafane 1996	Not described U	Not described U	Not described U	Not described U	Not described U
Rouston 1992	Not described U	Not described U	Not described U	100% follow up L	Balance in baseline characteristics L
Misset 1991	Not described U	Not described U	Not described U	18/74 lost to follow up L	Balance in baseline characteristics L

Martin 1990	Not described U	Not described U	Not described U	No lost to follow-up L	Balance in baseline characteristics L
Kirkegaard 1997	Not described U	Not described U	Not described U	No lost to follow-up L	Balance in baseline characteristics L

Table 2: description of quality assessment for each included study.
H= high risk of bias; L= low risk of bias; U= uncertain risk of bias,