Assessed for eligibility (n =18 nurses)

Nurses who administer sedation in participating departments

Excluded (n = 7)

* Declined to participate (n= 7)

**Enrolment**

Randomized (**n=11 nurses**)

During ***evaluation*** period

* Patients monitored by nurses who consented to participation = 401)
* Cluster size (number of participants monitored by each nurse ranged from 7 to 69)

Allocated to **Intervention**

Using capnography monitoring ***with*** Integrated Pulmonary Index (IPI) (nurses=5 nurses, n=220 patients)

* Received allocated intervention (n=5, cluster size ranged from 18 to 69)
* Did not received allocated intervention (n=2 patients)

**Allocation**

Allocated to **Control**

Using Capnography monitoring ***without*** Integrated Pulmonary Index (IPI) (n=6 nurses, n=181 patients)

* Received allocated intervention (n=6, cluster size ranged from 7 to 55)
* Did not receive allocated intervention (n=0)

**Follow-Up**

* Lost to follow: (n=0)
* Discontinued intervention: (n=0)
* Lost to follow: (n=0)
* Discontinued intervention: (n=0)

* Analyzed (n=5 clusters, n=215 patients, cluster size ranged from 18 to 67)
* Excluded from analysis (n=5 patients did not receive sedation during the procedure)
* Analyzed (n=6 clusters, n=175 patients, cluster size ranged from 7 to 51)
* Excluded from analysis (n=6 patients did not receive sedation during the procedure)

**Analysis**