

General use of Sedation Among Critically Ill Patients in ICU of Some Hospitals in Misurata, Libya

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Abstract

The purpose of the present study is to discover the sedation assessment tool and how to use them, the complications of sedation drugs, and evaluate the appropriate sedation according to the patient's condition, by anesthesiologists in Misurata hospitals. There were a total of 30 anesthesiologists. The respondents were worked in different hospitals in Misurata (public and private hospitals) which include: Misurata Medical Center, Alhekma Hospital, and alzohoor hospital. Questionnaires were distributed to anesthesiologists in 2021. Through our results, we note that the majority of the respondents have ages from 31-35 years old, that most of the anesthesiologists are dominantly male, that greater number of respondents or 64 percent (n=19) were worked in Misurata Medical Center, 13 percent (n=4) were worked in Al-jazera, 10 percent (n=3) were worked in Al-hekma, 7 percent (n=2) were worked in Al-zohoor, Onocology and Zraiq at rate of 3 percent (n=1) for each, that most of the respondents have from 1-5 years of working experience in ICU, that the most anesthesiologists were used assessment tools and that the vast majority of anesthesiologists use RASS. While none of them use ATICE, the vast majority of anesthesiologists use Dormicum by 63% in cardiovascular, the most common drug is used Dormicum by 33% in respiratory, the most anesthesiologists use Ketamine by 33% in truma / ortho, the most anesthesiologists use dormicum by 50% in vascular, the most of anesthesiologists use dormicum by 37% in neurology, the most of anesthesiologists use propofol by 35% in gynecology, the most of anesthesiologists use ketamine by 50% in pediatric. Through the current study, we concluded that most of the target audience use the assessment tools in the intensive care unit, which was the most common, which is RASS. Also, the most common sedation drugs used in the intensive care unit are Dormicum, ketamine and propofol, and for each drug there are complications. The results showed that the most common complications (hypotension, respiratory depression).

Keywords: Sedation Assessment, Dormicum, Propofol, Misurata Hospitals.

Introduction

In patients who are critically ill, sedatives are frequently titrated to achieve desired effects. The patient's state of sedation is now assessed using subjective clinical assessment tools, but more quantitative techniques of monitoring sedation are needed (Michail N and Paul F, 1995). Patients in the intensive care unit (ICU) frequently take intravenous opioids and sedative-hypnotics to alleviate both physical and mental pain. ICU agitation, decannulation, and cardiac instability can result from underdosing of sedatives and analgesics. Respiratory depression, hypotension in the system, and persistent sedation may result from excessive use of these drugs (Juliana B and Andrew D, 1995). Providing a pleasant experience for the patient is one of the most essential objectives of healthcare providers. Treating patients' pain and anxiety when they arrive at a hospital's emergency department (ED) is essential to patient satisfaction and quality of care. Because of lack of experience or uncontested beliefs about its administration, doctors may underuse sedation. Sedation is the lowering of a patient's awareness and response to stimuli from the outside world.

This is achieved by varying the dose of sedation: Anxiolysis, or drug-induced apprehension alleviation, is the same as minor sedation, which has a minimal effect on the senses. Patients can still respond to external stimuli when under moderate sedation, which is defined as "a lowering of consciousness where the patient can still respond to external stimuli" (verbal or tactile). Cardiovascular and respiratory functions are intact. In deep sedation, the patient cannot be awakened but responds purposely to repetitive or unpleasant stimuli to maintain awareness. Despite the patient's inability to sustain airway reflexes or spontaneous ventilation, the patient's cardiovascular function is intact (Chudnofsky CR, Lozon MM, 2002). Physicians in the ED are expected to administer analgesics and sedatives to patients. An understanding of the available pharmaceuticals enables the appropriate selection and safe usage of these medications. For this, additional research is needed into the drugs and their most common combinations (Vinson DR, Bradbury DR, 2002). In patients who are asleep or sedated, it is difficult to recognize and quantify pain since they cannot speak. A trustworthy and valid pain assessment tool must be used to evaluate these individuals' pain (Sanna-M, 2009).

Objectives of the Study

The purpose of the present study is to discover the sedation assessment tool and how to use them, the complications of sedation drugs, and evaluate the appropriate sedation according to the patient's condition, by anesthesiologists in Misurata hospitals. Moreover, recommendations and suggestions were carried out based on the findings of the study.

Scope and Delimitation:

There were a total of 30 anesthesiologists who work in the ICU. The respondents were worked in different hospitals in Misurata which includes:

Misurata Central Hospital, Alhekma Hospital, Alzohoor Hospital, and Aljazera Hospital.

The study focused on the sedation assessment tools and the appropriate sedation according to the patient's condition, and the complications of sedation drugs. Moreover, age, gender, and years of experience in ICU were included in this study. The findings may be used in planning to manage sedation drugs in ICU.

Definition of Terms:

The following terms are defined to provide the reader the correct understanding of the terms used in the study:

RASS: The **Richmond Agitation Sedation Scale (RASS)** is an instrument designed to assess the level of alertness and agitated behavior in critically ill patients (Sessler C, 2002).

GCS: The **Glasgow Coma Scale** provides a practical method for assessment of impairment of conscious level in response to defined stimuli (Reith F et al., 2017).

BPS: The **Behavioral Pain Scale** is a valid tool for measuring pain in conscious sedated patients during painful procedures. Thus, for non-communicative and mechanically ventilated patients, it may be regarded as a bridge between the observational scale used by nurses and the VRS-4 used by patients who can self-report pain.

Patient: this term means any recipient of health care service who most of them ill or injured and needed treatment (Mrayyan, M, 2006).

Side effects: an appreciably harmful or unpleasant reaction, resulting from an intervention related to the use of a medicinal product (David. F, 2000).

Sedation: Sedation is "a minimally depressed level of consciousness that retains the patient's ability to independently and continuously maintain an airway and respond appropriately to physical stimulation and verbal commands (Wolfgang Stehr, 2008).

Intensive care unit: Also known as, critical care is a multidisciplinary and interprofessional specialty dedicated to the comprehensive management of patients having, or at risk of developing, acute, life-threatening organ dysfunction. Intensive care uses an array of technologies that provide support for failing organ systems, particularly the lungs, cardiovascular system, and kidneys. The primary goal of intensive care is to prevent further physiologic deterioration while the underlying disease is treated and resolved (Marshall J. et al., 2017).

Complication: In medicine, an unanticipated problem that arises following, and is a result of, a procedure, treatment, or illness. A complication is so named because it complicates the situation (David. F, 2000).

Drug: a chemical substance used in the treatment, cure, prevention, or diagnosis of disease or used to otherwise enhance physical or mental well-being. (in federal law) any substance recognized in the official pharmacopeia or formulary of the nation (Bertram G. et al., 2008).

Research Methodology

This section described the research designs, participants and settings, research instrument, the data gathering procedure and appropriate statistical tools and drugs for interpretation and analysis of the data.

This research utilized the descriptive research design to describe and summarize data. It was used in the profiling and characterization of the respondents and their responses. This was employed to produce an accurate description of the variables under study.

According to Polite and Hunger (2004), quantitative description involves the prevalence, incidence, size and measurable attributes of a phenomenon. Descriptive studies assist the researcher to discover new meanings describing what exists, determining the frequency with which something occurs and categorizing information (Burns and Grove, 1999). The researcher utilized the descriptive design to understand the sedation assessment tools and appropriate sedation drugs and their complications.

Participants and Setting

There were a total of 30 anesthesiologists. The respondents were worked in different hospitals in Misurata (public and private hospitals) which includes:

Misurata Medical Center, Alhekma Hospital, Al-Jazeera and alzoheer hospital. Questionnaires were distributed to anesthesiologists in 2021.

The study focused on the sedation assessment tools and appropriate sedation drugs and their complications. In addition, the advantages of sedation drugs. Moreover, the years of experience in ICU and the number of ICU departments were included in this study. The findings may be used in planning to manage sedation drugs, and discover the complications for these drugs. In this study, we also determined the sedation assessment tools in assessing the patient in ICU.

Research Instrument:

The research instrument used in the study was a survey questionnaire.

The questionnaire is divided into two parts:

Part I: consists of the profile of the respondents which is composed of five questions including age, gender, and the place of work, years of experience in ICU, and the number of ICU departments working with.

Part II: is the sedation assessment tools and appropriate sedation drugs and their complications assessment instrument which is consists of four items. **Item 1** determined the sedation assessment tools in assessing the patient in ICU. **Item 2** focused on the particular sedation drugs according to the condition of patients (cardiovascular, respiratory, trauma, vascular, neurology, gynecology, pediatrics, and any other cases). **Item3** assessed the advantages that have been observed in the most common sedation drugs in ICU. **Item 4** assessed the complications that have been observed in the most common sedation drugs in ICU.

Data Gathering Procedure:

The researchers secured all necessary permission from concerned authorities in the conduct of the study. The data for this study were collected by distributing questionnaires to a group of anesthesiologists in different hospitals in Misurata who work in ICU, and that is after the approval of the letter submitted to the hospital was taken. The questionnaires were handed over to the anesthesiologists through the head of the department in the hospital and were received from them.

Statistical Treatment and Data Analysis:

The data gathered were classified, tabulated and analyzed. The researcher used frequency, percentage distribution as a statistical tool. Such a tool shows the number of observations falling in each range or the percentage observations. It is used to find out the incidence of discovering the sedation assessment tool and how to use them, the complications of sedation drugs, and evaluate the appropriate sedation according to the patient's condition, by anesthesiologists in Misurata hospitals. Tables and pie graphs were also used to describe the information gathered from the research study.

Search Criteria:

- The drugs must be for sedation in ICU.
- The respondent must be an anesthesiologist.

Search location:

Misurata Medical Center, Alhekma Hospital, alzohoor hospital, Zraig hospital. Questionnaires were distributed to anesthesiologists in June 2021.

Results

This section deals with the presentation of the data gathered from the respondents through the assessment of general use of sedation among critically ill patients in ICU for this study. Frequency, percentage and weighted mean were used as statistical treatments. The results guided the researcher in making recommendations, finding out the general use of sedation among critically ill patients in (ICU) in a different hospital in Misurata, Libya. The information gathered from the participants is presented in the form of tables and charts. The questionnaire consists of two parts, part I addressed the profile variables of the respondents, and part II consist of the sedation assessment tools in assessing the patient in ICU, the particular sedation drugs according to the condition of patients, their advantages and their complications.

Profile of the respondents:**Age:**

Table (1): frequency and percentage of distribution of respondents according to age

Age	Frequency	Percent%
25-30 years	9	30%
31-35 years	17	57%
36-40 years	4	13%
Total	30	100%

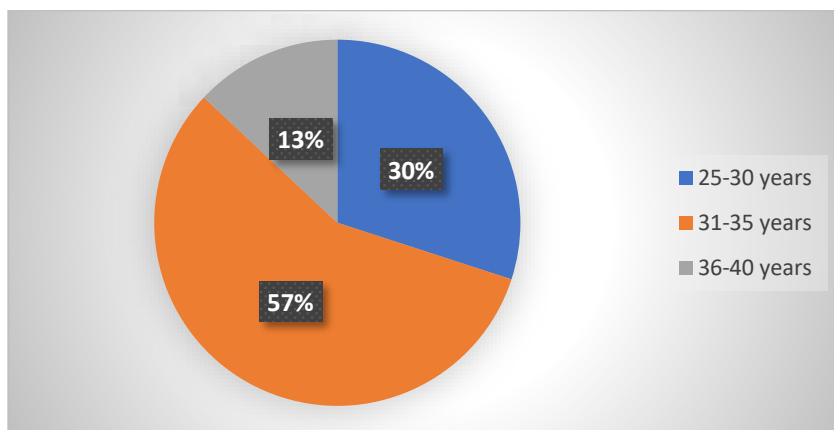


Figure (1): frequency and percentage of distribution of respondents according to age

When respondents were grouped according to age, table1 and figure 1 show that 57 percent (n=17) were 31-35 years of age, 30 percent (n=9) belongs to 25-30 years old and 13 percent (n=4) were 3640 years old. This finding revealed that the majority of the respondents have ages from 31-35 years old.

Gender:

Table (2): frequency and percentage of distribution of respondents according to gender:

Gender	Frequency	Percent%
Male	18	60%
Female	12	40%
Total	30	100%

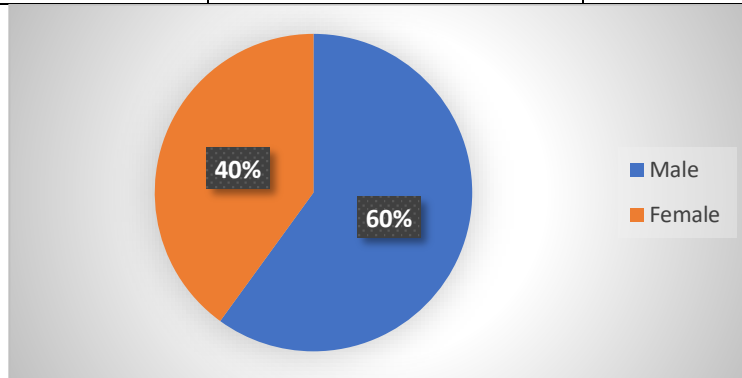


Figure (2): frequency and percentage of distribution of respondents according to gender

The above table and figure, show the frequency and percentage distribution of respondents according to gender. The results revealed that more than half of respondents or 60 percent (n=18) are male and 40 percent (n=12) are female. This finding indicates that most anesthesiologists are dominantly male.

Place of Work:

Table (3): frequency and percentage of distribution of respondents according to the place of work

Place of work	Frequency	Percent%
Misurata Medical Center	19	64%
Al-Jazeera	4	13%
Al-hekma	3	10%
Alzohoor	2	7%
Onocylogy	1	3%
Zraiq	1	3%
Total	30	100%

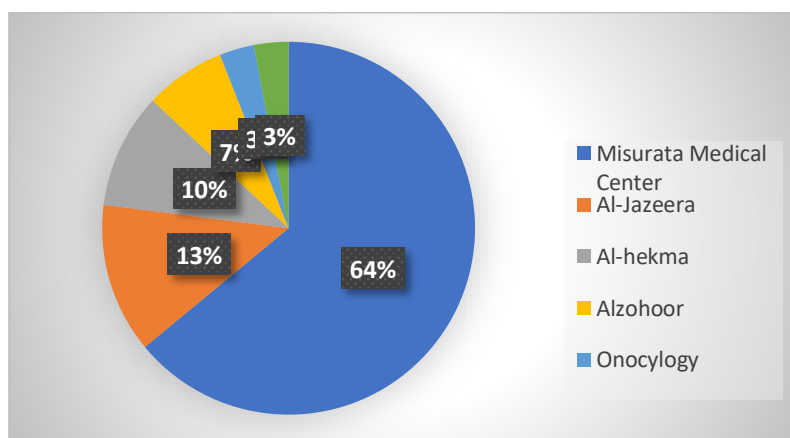


Figure (3): frequency and percentage of distribution of respondents according to a place of work

The above table and figure show the percentage distributions of respondents according to the place of work. The results tell us that a greater number of respondents or 64 percent (n=19) were worked in Misurata Medical Center, 13 percent (n=4) were worked in Al-jazera, 10 percent (n=3) were worked in Al-hekma, 7 percent (n=2) were worked in Al-zohuor, Onocology and Zraiq at rate of 3 percent (n=1) for each.

Years of experience:

Table (4): frequency and percentage of distribution of respondents according to years of experience:

Years of experience	Frequency	Percent%
0-12 months	1	3%
1-5 years	16	54%
6-10 years	12	40%
11-15 years	1	3%
Total	30	100%

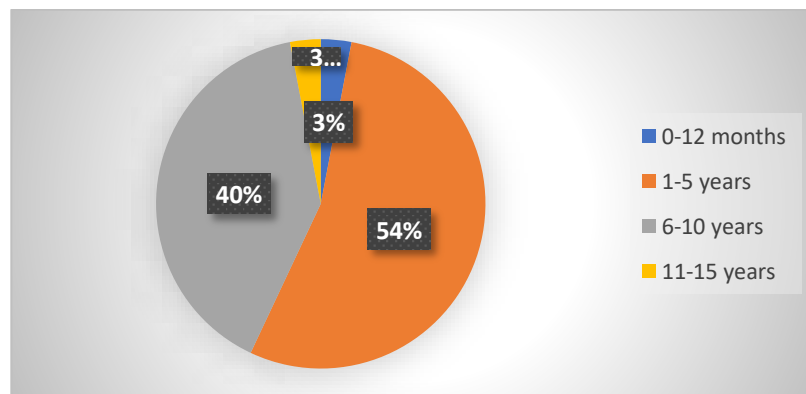


Figure (4): frequency and percentage of distribution of respondents according to years of experience

The above table and figure, show the frequency and percentage distribution of respondents according to years of experience. The result reveals that 54percent (n=16) of the respondents have from 1-5 years of experience working in ICU. 40percent (n=12) of the respondents have from 6-10years of experience working in ICU, 3 percent (n=1) of the respondents have from 11-15 years of experience working in ICU, and 3 percent (n=1) of the respondents have from 0-12 months of experience working in ICU. This finding explains that most of the respondents have from 1-5 years of working experience in ICU.

Sedation assessment tools in assessing a patient in ICU:

Table (5): frequency and percentage distribution of respondents according to use any sedation assessment tools in assessing the patient in ICU:

Assessment tools	Frequency	Percent%
Using assessment tools	16	53%
Do not using assessment tools	14	47%
Total	30	100%

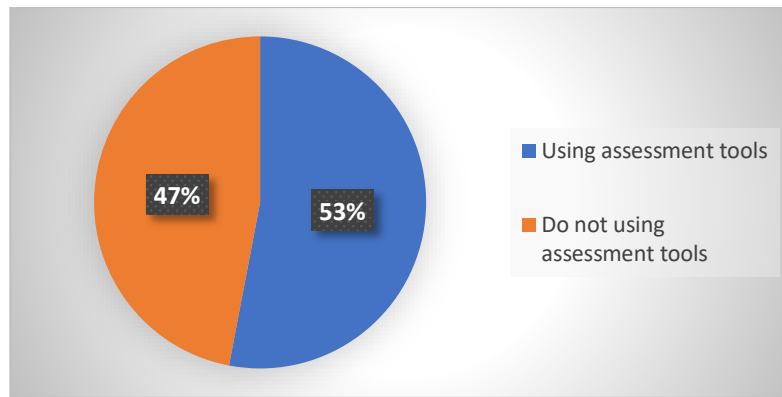


Figure (5): frequency and percentage distribution of respondents according to use any sedation assessment tools in assessing the patient in ICU

Looking at the table and the chart above, we note that 53 percent (n=16) of the anesthesiologists were used the sedation assessment tools in assessing the patient in ICU, however, 47 percent (n=14) of the anesthesiologists were used the sedation assessment tools in assessing the patient in ICU. These results indicate that most anesthesiologists were used assessment tools.

Sedation assessment tools that use in assessing the patient in ICU:

Table (6): frequency and percentage distribution of sedation assessment tools in assessing the patient in ICU

Sedation assessment tools in assessing the patient in ICU	Frequency	Percent%
RASS	8	50%
GCS	6	38%
BPS	2	12%
ATICE	0	0%
Total	16	100%

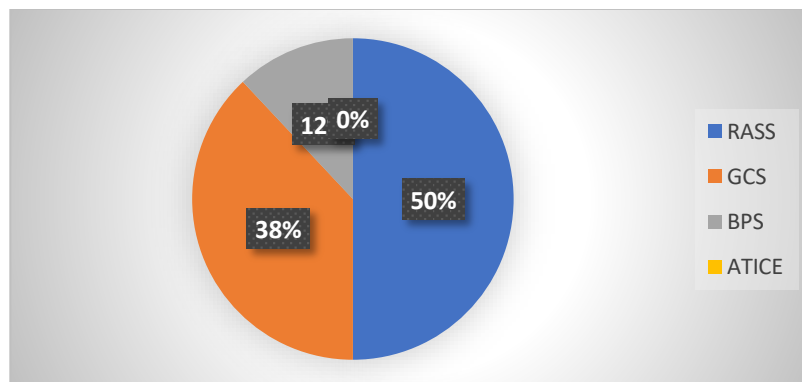


Figure (6): frequency percentage distribution of sedation assessment tools in assessing the patient in ICU

Looking at the table and figure above, we notice that half 50 percent (n=8) of the anesthesiologists use RASS, while 38 percent (n= 6) use GCS, 12 percent (n=2) use BPS, while none of the anesthesiologists targeted in this study use ATICE. Moreover, through these results, we note that the vast majority of anesthesiologists use RASS. While none of them use ATICE.

Sedation Drug that Used in ICU:

Table (7): The most common drugs that used in ICU

Sedation drugs	Cardiovascular	Respiratory	Truma/ortho	Vascular	Neurology	Gynecology	Pediatrics
Dormicum	26	14	11	12	9	5	8
Ketamine	2	13	14	4	2	2	11
Thiopental	0	1	0	1	4	3	0
Propofol	2	9	11	2	4	7	2
Fentanil	6	5	5	2	3	0	2
Morphine	3	0	1	2	0	0	0
Valium	0	0	0	0	2	0	0
Etomidate	2	0	0	0	0	0	0
Pethidine	0	0	0	1	0	3	0

Sedation Drugs in Cardiovascular:

Table (8): frequency and percentage distribution of sedation drugs in the cardiovascular system

Sedation drug in cardiovascular	Frequency	Percentage
Dormicum	26	63%
Ketamine	2	5%
Thiopental	0	0%
Propofol	2	5%
Fentanil	6	15%
Morphine	3	7%
Valium	0	0%
Etomidate	2	5%
Pethidine	0	0%
Total	41	100%

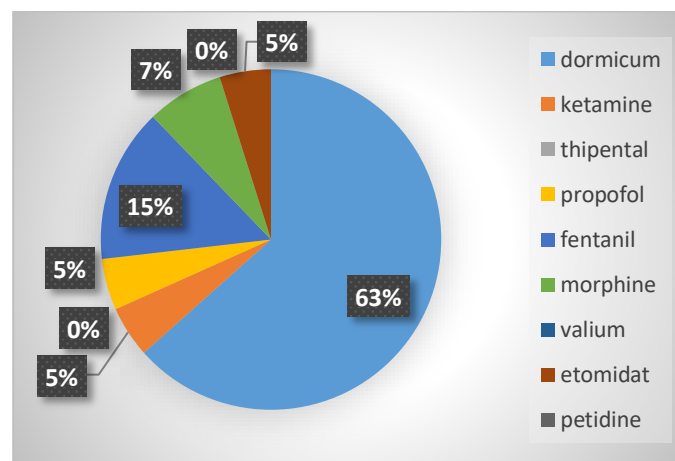


Figure (7): frequency and percentage distribution of sedation drugs in the cardiovascular system

The above table and figure, show the frequency and percentage distribution of sedation drugs in the cardiovascular system. The results revealed that more than half of sedation drug in the cardiovascular system or 63 percent (n=26) is Dormicum, 15 percent (n=6) is Fentanil, 7 percent (n= 3) is Morphine, in addition to other drugs that came at a rate of 5 percent (n=2) for each, these drugs are Ketamine, Propofol, and Etomidate. Moreover, Thiopental, Valium, and Pethidine are not used. Through these results, we note that the vast majority of anesthesiologists use Dormicum by 63%.

Sedation Drugs in The Respiratory System:

Table (9): frequency and percentage distribution of sedation drugs in respiratory system:

Sedation drug in respiratory	Frequency	Percentage
Dormicum	14	33%
Ketamine	13	31%
Thiopental	1	2%
Propofol	9	22%
Fentanyl	5	12%
Morphine	0	0%
Valium	0	0%
Etomidate	0	0%
Pethidine	0	0%
Total	42	100%

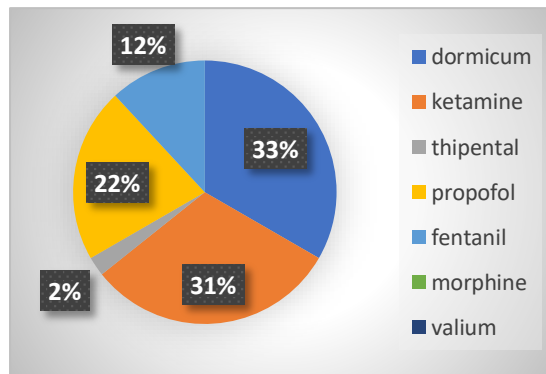


Figure (8): frequency and percentage distribution of sedation drugs in the respiratory system

The above table and figure, show the frequency and percentage distribution of sedation drugs in the respiratory system. The results revealed that 33 percent (n=14) is Dormicum, 31 percent (n=13) is ketamine, 22 percent (n= 9) is propofol, 12 percent (n=5) is fentanyl, 2percent (n=1) is thiopental. In addition to other drugs that came at a rate of 0 percent (n=0) for each, these drugs are not used (morphine, valium, etomidate, and pethidine). Through these results, we note that the most common drug is used Dormicum by 33%.

Sedation drugs in truma/ ortho:

Table (10): frequency and percentage distribution of sedation drugs in truma/ ortho:

Sedation drugs in truma / ortho	Frequency	Percentage
Dormicum	11	26%
Ketamine	14	33%
Thiopental	0	0%
Propofol	11	26%
Fentanyl	5	12%
Morphine	1	3%
Valium	0	0%
Etomidate	0	0%
Petidine	0	0%
Total	42	100%

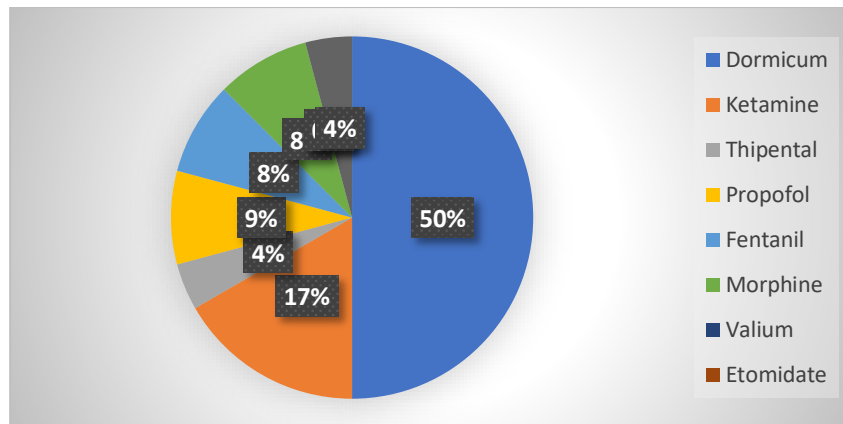


Figure (9): frequency and percentage distribution of sedation drugs in truma/ ortho

The above table and figure, show the frequency and percentage distribution of sedation drugs in truma/ ortho. The results revealed that 33 percent (n=5) is ketamine, 26 percent (n=11) for each (propofol and dormicum, 12 percent (n= 9) is propofol, 12 percent (n=5) is fentanil, 3percent (n=1) is morphine. other drugs that came at a rate of 0 percent (n=0) for each, these drugs are not used (valium, etomidate, and pethidine). Through these results, we note that most anesthesiologists use Ketamine by 33%.

Sedation drugs in vascular:

Table (11): frequency and percentage distribution of sedation drugs in vascular:

Sedation drugs in vascular	Frequency	Percentage
Dormicum	12	50%
Ketamine	4	17%
Thipental	1	4%
Propofol	2	9%
Fentanil	2	8%
Morphine	2	8%
Valium	0	0%
Etomidate	0	0%
Petidine	1	4%
Total	24	100%

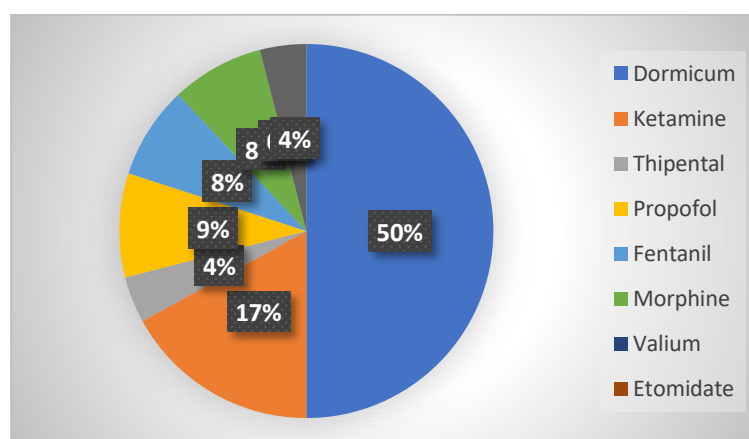


Figure (10): frequency and percentage distribution of sedation drugs in vascular

The above table and figure, show the frequency and percentage distribution of sedation drugs in vascular. The results revealed that half of sedation drug in vascular or 50 percent (n=12) is Dormicum , 17 percent (n=4) is ketamine, 9 percent (n=2) is propofol, 8 percent (n= 2) for each(morphine and fentanyl), 4 percent (n=1) for each (thiopental and pethidine).

Other drugs that came at a rate of 0 percent (n=0) for each, these drugs are not used (valium and etomidate). Through these results, we note that most anesthesiologists use dormicum by 50% as a sedation drug in vascular.

Sedation drugs in neurology:

Table (12): frequency and percentage distribution of sedation drugs in neurology:

Sedation Drugs in Neurology	Frequency	Percentage
Dormicum	9	37%
Ketamine	2	8%
Thiopental	4	17%
Propofol	4	17%
Fentanyl	3	13%
Morphine	0	0%
Valium	2	8%
Etomidate	0	0%
Petidine	0	0%
Total	24	100%

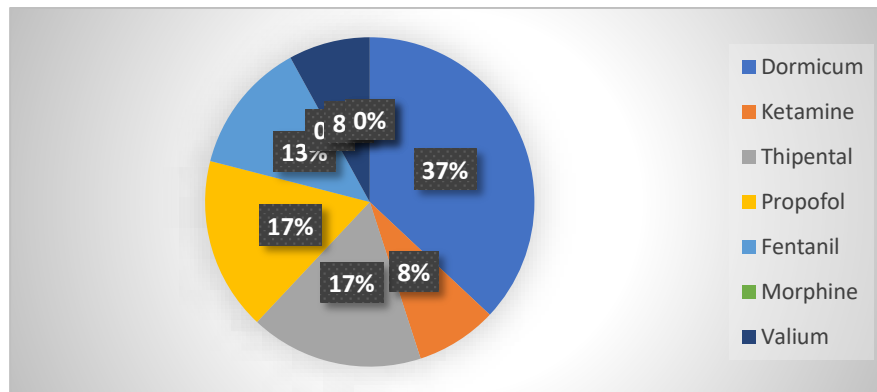


Figure (11): frequency and percentage distribution of sedation drugs in neurology:

The above table and figure, show the frequency and percentage distribution of sedation drugs in neurology. The results revealed that 37 percent (n=9) is Dormicum , 17 percent (n=4) for each (thiopental and propofol), 13 percent (n=3) is fentanyl, 8 percent (n= 2) for each(ketamine and valium). Other drugs that came at a rate of 0 percent (n=0) for each, these drugs are not used (morphine, pethidine and etomidate). Through these results, we note that most anesthesiologists use dormicum by 37% as a sedation drug in neurology.

Sedation Drugs in Gynecology:

Table (13): frequency and percentage distribution of sedation drugs in gynecology:

Sedation drugs in gynecology	Frequency	Percentage
Dormicum	5	25%
Ketamine	2	10%
Thipental	3	15%
Propofol	7	35%
Fentanil	0	0%
Morphine	0	0%
Valium	0	0%
Etomidate	0	0%
Petidine	3	15%
Total	20	100%

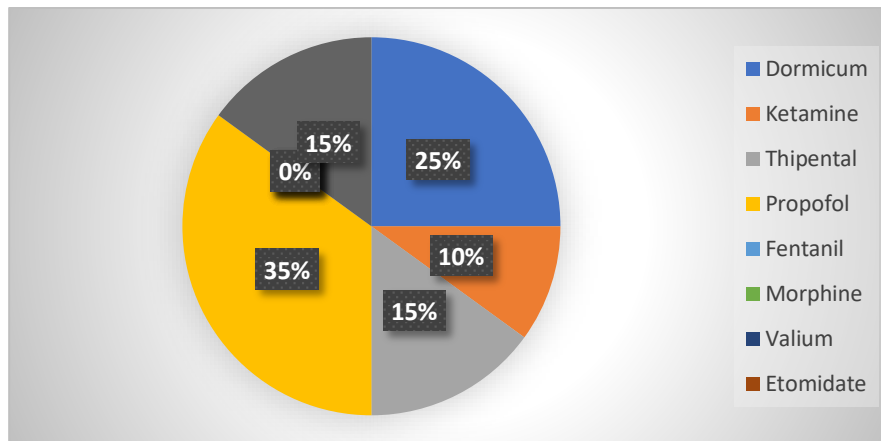


Figure (12): frequency and percentage distribution of sedation drugs in gynecology:

The above table and figure, show the frequency and percentage distribution of sedation drugs in gynecology. The results revealed that 35 percent (n=7) is propofol, 25 percent (n=5) is dormicum, 15 percent (n=3) for each (thiopental and pethidine), 10 percent (n=2) is ketamine. Other drugs that came at a rate of 0 percent (n=0) for each, these drugs are not used (morphine, fentanyl, valium and etomidate). Through these results, we note that most anesthesiologists use propofol by 35% as a sedation drug in gynecology.

Sedation drugs in pediatric:

Table (14): frequency and percentage distribution of sedation drugs in pediatric:

Sedation drug in pediatric	Frequency	Percentage
Dormicum	8	34%
Ketamine	12	50%
Thipental	0	0%
Propofol	2	8%
Fentanil	2	8%
Morphine	0	0%
Valium	0	0%
Etomidate	0	0%
Petidine	0	0%
Total	24	100%

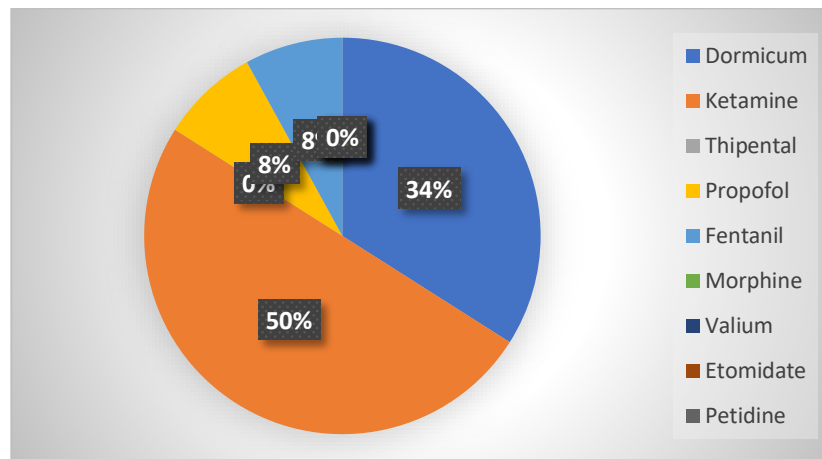


Figure (13): frequency and percentage distribution of sedation drugs in pediatric

The above table and figure, show the frequency and percentage distribution of sedation drugs in pediatrics. The results revealed that half of the sedation drug in pediatric or 50 percent (n=12) is ketamine, 34 percent (n=8) is Dormicum, 8 percent (n=2) for each (propofol and fentanyl). Other drugs that came at a rate of 0 percent (n=0) for each, these drugs are not used (valium, thiopental, morphine, pethidine and etomidate). Through these results, we note that most anesthesiologists use ketamine by 50% as a sedation drug in pediatrics.

Complications of sedation drugs:

Table (15): frequency and percentage distribution of respondents according to expect complications of sedation.

Complications	Frequency	Percentage
Yes	16	53%
No	14	47%
Total	30	100%

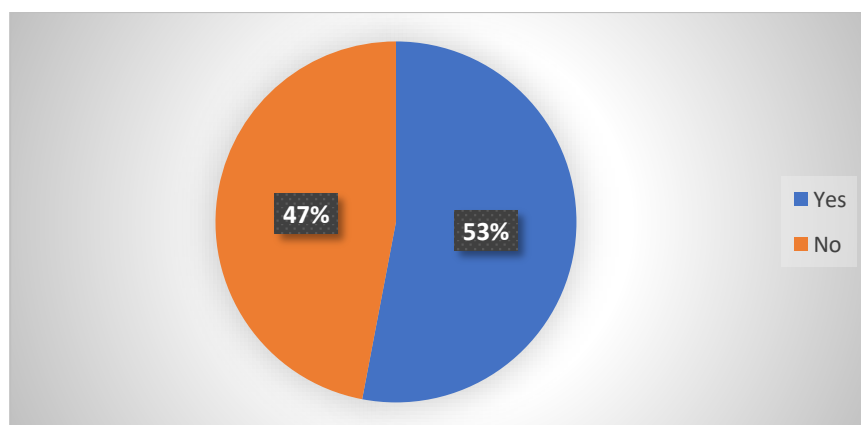


Figure (14): frequency and percentage distribution of respondents according to expect complications of sedation.

The above table and figure represent the percentage distribution of the respondents according to expect the complication of sedation. There are 16 (53%) who answered yes and 14 (47%) answered no. The complications that have been observed in the most common sedation drugs.

Table (16): frequency and percentage of the complications that have been observed in the most common sedation drugs:

Complication	Frequency	Percentage
Hypotension	8	30%
Hypertension	4	15%
Respiratory depression	8	30%
Tachycardia	2	7%
CO2 retention	2	7%
Apnea	2	7%
Pneumonitis	1	4%
Total	27	100%

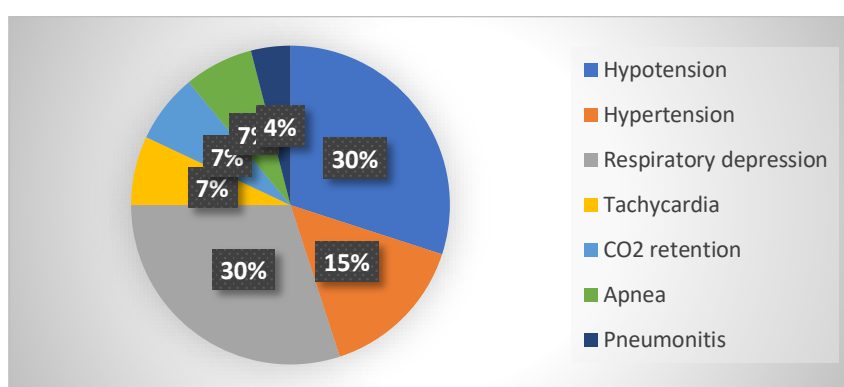


Figure (15): frequency and percentage of the disadvantages that have been observed in the most common sedation drugs

The above table and figure, show the frequency and percentage of the complications that have been observed in the most common sedation drugs. Finding reveals that the most common complication of these drugs is hypotension and respiratory depression, which came at (32%) (n=8) for each. In addition to other complications that hypertension at (16%) (n=4), tachycardia and CO2 retention came at a rate of (8%) (n=2) for each, apnea and pneumonitis came at a rate of (4%) (n=1) for each. This finding reveals that hypotension and respiratory depression are at the forefront of the complications of these drugs, which we seek through this study to find a solution to prevent.

Dissociation

When the respondents were classified according to age, the largest percentage was for the age group 31-35 years, and their number was 17, and their percentage was 57%, and this means that the majority of the anesthesiologists working in the intensive care department ranged between the ages of 31-35 years. There were 18 male respondents, and their percentage is 60%, and this means that male doctors working in the department are more than female doctors.

The majority of the respondents work in the Misurata medical center (MMC) numbering 19 (66%). When respondents were classified according to experience, the majority of working doctors had years of experience between 1-6 years, and their number was 16 (40%). Through the data, we found that the majority of doctors use the sedation assessment tools assessing patients and their number is 16 (53%) and that the most used tool is RASS, and the number of users of it was 8 (50%) we also found that when we make statistics about the use of sedation rug in ICU on different systems organ. That the majority of respondents use dormicum in cardiovascular 26 (63%), respiratory 14 (33%), vascular 12 (50%) and neurology 9 (37%), regards to truma/ortho and pediatrics we found that the majority of respondents used ketamine truma/ortho 14 (33%) and pediatrics 12 (50%), while the majority of respondents used propofol on gynecology 7 (35%).

When we asked respondents about the expectation of any complications from sedation drug the majority of respondents were expecting complications. And most complications were expected hypotension and respiratory depression.

Conclusions

The targeted respondents were the age of most of them, the age group is from 31-35 years, and most of them are males more than their female counterparts. We conclude from this that perhaps the work for males in this section is easier than the work of females, perhaps due to the limited movement of females and their preoccupation with social life.

We find that most of the respondents work in the Misurata medical center (MMC), perhaps because it is governmental and because it is one of the largest centers locally, as it had the largest department and receives the most cases and job opportunities there are greater. The most commonly used tool by respondents is RASS we conclude from this that it is the most well-known tool and perhaps the easiest to use. Through the statistics of data from the questionnaires, we conclude that dormicum, ketamine and propofol are among the most used sedation drug and they were used by the majority of respondents. This may be due to their large availability or their cheapness, and perhaps because complications do not occur significantly after their use. Most patients after exposure to sedation drug have complications, and most of them are hypotension and respiratory depression perhaps this is because most of the sedation drug work on the vascular and respiratory systems, which causes these complications.

References:

- Bertram G., Susan B., and Anthony J., 2008: Pharmacology examination and board review, 8th. University of California, San Francisco: Mc Graw.
- Burns, N. and Grove, S (1999). Understanding Nursing Research. 2nd edition. United states of America: W.B. Saunders Company.
- Chudnofsky CR, Lozon MM. Sedation and analgesia for procedures. Marx JA, Hockberger RS, Walls RM, eds. Rosen's Emergency Medicine: Concepts and Clinical Practice. 5th ed. St. Louis, Mo: Mosby, Inc; 2002. 2578-90.
- Devlin JW, Skrobik Y, Gélinas C, Needham DM, Slooter AJ, Pandharipande PP, Watson PL, Weinhouse GL, Nunnally ME, Rochweg B, Balas MC. Clinical practice guidelines for the prevention and management of pain, agitation/sedation, delirium, immobility, and sleep disruption in adult patients in the ICU. Critical care medicine. 2018 Sep 1;46(9): e825-73.
- Juliana B and Andrew D (1995). Optimal Intravenous Dosing Strategies for Sedatives and Analgesics in the Intensive Care Unit. Volume 11, Issue 4, October 1995, Pages 827-847.
- Marshall J. et al., 2017. What is an intensive care unit? A report of the task force of the World Federation of Societies of Intensive and Critical Care Medicine. Journal of Critical Care 37 (2017) 270–276.
- Michail N and Paul F (1995). Methods for Monitoring the Level of Sedation. Volume 11, Issue 4, October 1995, Pages 803-826.
- Mrayyan, M (2006). Jordanian nurse's job satisfaction, patient's satisfaction, and quality nursing care. International Nursing Review, 53,224-230.
- Polit, D. and Hungler, B. (2004). Nursing Research Principles and Methods. 7th edition. Philadelphia: Lippincott William and Wilkins.
- Reith FC, Synnot A, van den Brande R, Gruen RL, Maas AI: Factors Influencing the Reliability of the Glasgow Coma Scale: A Systematic Review. Neurosurgery:2017
- Sanna-Mari Pudas-Tähkä, Anna Axelin, Riku Aantaa, Vesa Lund, Sanna Salanterä. Pain assessment tools for unconscious or sedated intensive care patients: a systematic review. Volume65, Issue5 May 2009, Pages 946-956.
- Sessler CN, Gosnell MS, Grap MJ, Brophy GM, O'Neal PV, Keane KA, Tesoro EP, Elswick RK. The Richmond Agitation–Sedation Scale: validity and reliability in adult intensive care unit patients. American journal of respiratory and critical care medicine. 2002 Nov 15; 166(10):1338-44.
- Vinson DR, Bradbury DR. Etomidate for procedural sedation in emergency medicine. Ann Emerg Med. 2002 Jun. 39(6):592-8. [Medline].
- Wolfgang Stehr (2008). The Mont Reid Surgical Handbook. Sixth Edition. Pages 173-180.