Results

The results of this study are grouped as follows:

Part I: Description of jury group characteristic:

1. Frequency and percentage distribution of jury demographic characteristic table:1
2. Agreement of jury groups on general format of the designed nursing care standards for patients with CAD at CICU. (no=35) face and content validity, table: 2-5.

Part II: Description of staff nurses characteristics:

1. Frequency and percentage distribution of staff nurses demographic characteristic table:6
2. Staff nurses opinions regard to the applicability, availability and importance of the designed structure of nursing care standards of CICU: table 7-9
3. Staff nurses performance observation regard to nursing assessment, nursing diagnosis, and nursing planning components of the designed nursing care standards: table10-12

Part III: Description of patients characteristics:

1. Demographic characteristic for patients with CAD in the study and control group table: 13.
2. Outcome indicators of nursing performance on patients with coronary artery diseases in the study and control groups, table: 14.
3. Assessment of the patients complication in the study and control groups at CICU, table: 15.
4. Comparison between patients in the study and control groups regarding length of hospital stay at CICU, table: 16.

Part IV : Correlation between different variables: Table 17-19.

Part V: Applicability of the designed nursing care standards structure, process, and outcome by nurses at coronary intensive care unit based on developed observational checklist:

Table (10): Assessment of the structure component pre and post designed NCSs application in the CICU as observed. (no=3)

Structure standards	**Pre Application**	**post Application**	**T- Test**	
1. The CICU shall have an organizational attribute: **1. The CICU shall have mission statement which is consistent with that of the Sohag university hospital**	Mean score	Mean score	T	P-Value
	0.00	12.7	-----	-----
2. The CICU shall have philosophy and objectives	0.00	22.6	-----	-----
3. The CICU shall have rules and regulations	0.00	42.82	-----	-----
4. The CICU have appropriate qualified staff to provide care on a 24-hr basis	29.4	52.6	32.51	0.03*
5.The CICU have infection control strategy: 1. Hand washing procedure	42.82	97.5	41.43	0.001*
2. Gloving	58.8	80.42	48.95	0.001**
3. Masking	0.00	76.4	-----	-----
4. Gowning	0.00	60.21	-----	-----
5. Patient care equipment and supplies	42.82	75.00	29.31	0.01*
6. Environmental control	14.7	80.2	47.25	0.001**
7. Linens	29.4	69.6	52.73	0.001**
2.The CICU have essential human resources	42.82	55.3	17.38	0.375
3.The CICU have facilities resources: 1. Patient care items	14.7	58.8	29.31	0.001**
2. Equipment	29.4	39.7	13.52	0.274
3. Emergency medication	58.8	90.2	28.31	0.001**
4. Emergency equipment	42.82	80.00	45.92	0.001**
5. Financial resources	14.7	22.7	24.38	0.003*
4. The CICU shall have protocol and operate to protect all personnel from: 1. Biological hazards	0.00	58.8	-----	-----
2. Electrical hazards	0.00	58.8	-----	-----
3. Fire hazards	0.00	0.00	-----	-----
5. The CICU shall have a health record - keeping system	0.00	58.8	-----	-----
6. The CICU shall have job description for all nursing staff	0.00	29.4	-----	-----
7. The CICU shall have performance appraisal system for nursing staff	0.00	29.4	-----	-----

Insignificant P >0.05 *significant P< 0.05 **highly significant P<0.001

Table 10, shows the assessment of the study setting as observed. It illustrates that, pre NCSs application complete absent of the organizational attributes items. Conversely, the qualified staffs to provide care on 24-hr basis 29.4% were present. While standards of the infection control regarding gloving 58.8% was present. On the other hand, complete absent of items masking, gowning, biological hazards, electrical hazards, fire hazards, record keeping system, job description for all nurses staff and performance appraisal system were 0.00%. Regarding the essential facilities resources items were present ranged between 14.7% to 58.8%. Regarding post NCSs application noticed that, improved all items of the structured standards, except fire hazards were 0.00%. With highly statistically significant difference between pre and post NCSs application regarding structure component of the study setting (P<0.001**).

Table (11): Staff nurses performance observation regarding nursing assessment, diagnosis, and planning components of the designed NCSs for patients with CAD at CICU (no=34)

Process standards	Done		Not done	
	No.	%	No.	%
1. The initial assessment				
1. Reviewing laboratory data with reference to acceptable levels	15	42.82	19	51.94
2. Assessing hematological system	24	70.58	10	29.4
3. Assessing respiratory system	20	58.8	14	41.17
4. Assessing gastrointestinal system	22	64.81	12	35.29
5. Assessing respiratory system	14	41.17	20	58.8
6. Assessing genitourinary system	28	82.35	6	17.64
7. Assessing cardiovascular system	30	88.23	4	11.76
8. Assessing neurological system	24	70.58	10	29.4
9. Assessing integumentary system	27	79.41	7	20.0
2. Nursing diagnosis	21	61.76	13	38.23
3. Nursing planning	21	61.76	13	38.23

This table indicates the, staff nurses performance observation as regarding process standards of nursing care for patients with CAD at CICU. It can be noted that, most of the staff nurses showed high percentage of performance in initial assessment related to cardiovascular system and genitourinary system and ranged between 82.35% to 88.23%. While, the lowest percentage of nurses performance 41.17% to 42.82% was detected in assessing respiratory system and reviewing laboratory data with reference to acceptable levels.

Table (12): Staff nurses performance regarding nursing activities implementation and evaluation components of the designed NCSs for patients with CAD at CICU. (no=34)

Process standards	Done		Not done	
	No.	%	No.	%
4. Nursing activities implemented according to the priority of identifie problems/needs.				
1.Connecting patient to monitor	32	94.11	2	5.88
2. Administering oxygen therapy	34	100.0	0.00	0.00
3. Monitoring pulse oximetry continuously	34	100.0	0.00	0.00
4. Inserting oro-pharyngeal airway	30	88.23	4	11.76
5. Assessing endtracheal intubations	0.00	0.00	34	100.0
6. Performing endotracheal tube care	30	88.23	4	11.76
7. Assessing tracheostomy tube insertion	5	14.7	29	85.29
8. Assessing tracheostomy Tube/ Endotracheal Tube Suctioning	30	88.23	4	11.76
9. Managing patient on mechanical ventilation	29	85.29	4	11.76
10.Careing of chest tube drainage system	0.00	0.00	34	100.0
11. Assessing chest tube removing	8	22.85	26	76.47
12. Monitoring ECG continuously	34	100.0	0.00	0.00
13. Monitoring lead Electrocardiogram	34	100.0	0.00	0.00
14. Assisting with cardio Version	0.00	0.00	34	100.0
15. Assisting with defibrillation	12	35.29	22	64.81
16. Monitoring Arterial Blood Pressure	0.00	0.00	34	100.0
17. Removing arterial catheter	0.00	0.00	34	100.0
18. Insertionin central venus catheter	22	64.81	12	35.29
19. Monitoring central venous pressure	30	88.23	4	11.76
20. Monitoring pulmonary artery pressure	00.0	00.00	34	100.0
21. Assessing transvenous pacing	20	58.8	14	18.67
22. Assisting with Pericardiocentesis	15	42.82	14	82.35
23. Managing of Post-Operative coronary Angioplasty (PTCA)	22	64.81	12	35.29
24. Cardiopulmonary resuscitation 1. Opening air way	30	88.23	4	11.76
2. Assessing for breathing	30	88.23	4	11.76
3. Assessing circulation	30	88.23	4	11.76
4. Monitoring cardiac arrest team activities	0.00	0.00	34	100.0
5. Caring of patient post- resuscitation	32	94.11	2	5.88
5. Advising patient regarding health life style and prevention issues	29	85.29	5	14.7
6. <u>Nursing evaluation standards</u> 1. Evaluating the patient's progress toward attaining expected outcomes.	22	64.81	12	35.29
2. The critical ill nurse shall communicate effectively with: patients, and family of the patient.	30	88.23	4	11.76
3. Documenting the interventions of the patient in the permanent record	32	94.11	2	5.88

Concerning the nursing staff performance observation regarding nursing activities implementation and evaluation components of designed NCSs for patients with CAD it can be noted from this table

that, all the nurses under study performed the following activities; administering oxygen therapy, monitoring pulse oximetry, 12 lead electrocardiogram, and continuous ECG monitoring. The higher percentage of performance was 100%. While, the lowest percentage of performance was ranged between 14.7% to 22.85% on the items of assessing tracheostomy tube insertion and assessing chest tube removing. On the other hand, it can be noted from this table that, none of the entire sample 0.00% was assessing endotracheal intubations, caring of chest tube drainage system, assisting with cardio version, monitoring arterial blood pressure, and removing arterial catheter.