

PROGRAMME
NURSE PRACTITIONER IN
CRITICAL CARE



Ordinance No. (V-115 A)

Approved by the Academic Council in its meeting held on 29-9-2016

FACULTY OF NURSING

**SWAMI VIVEKANAND SUBHARTI UNIVERSITY,
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INTRODUCTION AND BACKGROUND

In India, reshaping health systems in all dimensions of health has been recognized as an important need in the National Health Policy, 2015 (NHP, 2015 draft document). It emphasizes human resource development in the areas of education and training alongside regulation and legislation. The government recognizes significant expansion in tertiary care services both in public and private health sectors. In building their capacity, it is highly significant that the health care professionals require advanced educational preparation in specialty and super-specialty services. To support specialized and super-specialized healthcare services, specialist nurses with advanced preparation are essential. Developing training programs and curriculum in the area of tertiary care is recognized as the need of the hour. Nurse practitioners (NPs) will be able to meet this demand provided they are well trained and empowered to practice. With establishment of new cadres in the center and state level, master level prepared NPs will be able to provide cost effective, competent, safe and quality driven specialized nursing care to patients in a variety of critical care settings in tertiary care centres. Nurse practitioners have been prepared and functioning in USA since 1960s, UK since 1980s, Australia since 1990s and Netherlands since 2010.


Nurse practitioners in critical care / acute care, oncology, emergency care, neurology, cardiovascular care, anesthesia and other specialties can be prepared to function in tertiary care settings. Rigorous educational preparation will enable them to collaboratively diagnose and treat patients with critical illnesses both for prevention and promotion of health. A curricular structure / framework is proposed by INC towards preparation of Nurse Practitioner in Critical Care (NPCC) at Masters Level. The special feature of this program is that it is a clinical residency program emphasizing a strong clinical component with 15% of theoretical instruction and 85% of practicum. Competency based training is the major approach and NP education is based on competencies adapted from International Council of Nurses (ICN, 2005), and NONPF competencies (2012). Every course is based on achievement of competencies.

Critical Care Nurse Practitioner Program is intended to prepare registered BSc Nurses to provide advanced nursing care to patients who are critically ill. The nursing care is focused on stabilizing patients' condition, minimizing acute complications and maximizing restoration of health. These NPs are required to practice in critical care units of tertiary care centers. The program consists of various courses of study that are based on strong scientific foundations including evidenced based practice and the management of complex health systems. These are built upon the theoretical and practice competencies of BSc trained nurses. On completion of the program and registration with respective state council they are permitted to independently administer drugs and order diagnostic tests, procedures, medical equipment and therapies as per institutional protocols. The NPs in CC when exercising this authority, they are accountable for the competencies in

- a) Patient selection/admission into ICU and discharge
- b) Problem identification through appropriate assessment
- c) Selection/administration of medication or devices or therapies
- d) Patients' education for use of therapeutics
- e) Knowledge of interactions of therapeutics, if any
- f) Evaluation of outcomes and Recognition and management of complications and untoward reactions.


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The NP in critical care is prepared and qualified to assume responsibility and accountability for the care of critically ill patients under his/ her care.

The said post graduate degree will be registered as an additional qualification by the State Nursing Council.

Philosophy

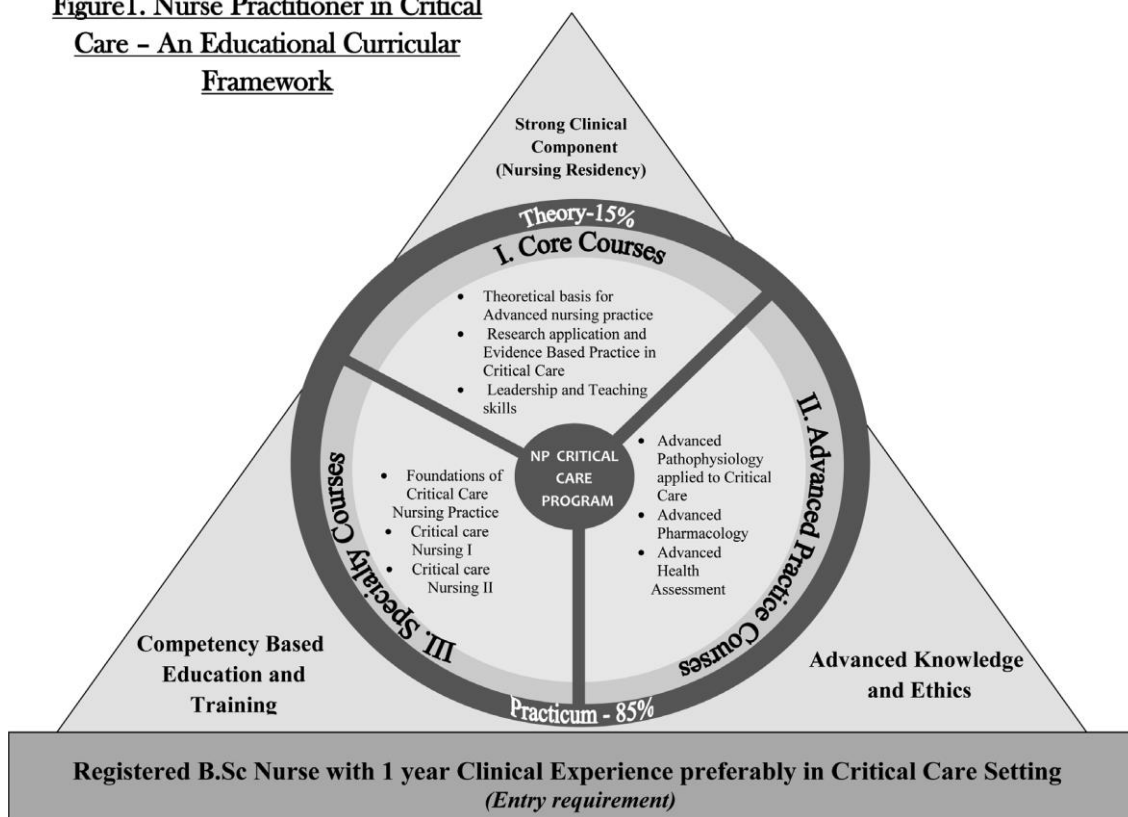
Indian Nursing Council believes that there is a great need to establish a postgraduate program titled Nurse Practitioner in Critical Care to meet the challenges and demands of tertiary health care services in India which is reflected in the National Health Policy (NHP draft document 2015) in order to provide quality care to critically ill patients and families.

INC believes that postgraduates from a residency program focused on strong clinical component and competency based training must be able to demonstrate clinical competence based on sound theoretical and evidence based knowledge. The teaching learning approach should focus on adult learning principles, competency based education, collaborative learning, clinical experience with medical and nursing preceptors, experiential learning and self-directed learning. Education providers/preceptors/mentors must update their current knowledge and practices. Medical faculty are invited to participate as preceptors in the training.

INC also believes that a variety of educational strategies can be used in the clinical settings to address the deficit of qualified critical care nursing faculty. It is hoped to facilitate developing policies towards registration/ licensure and create cadre positions for appropriate placement of these postgraduate critical care NPs to function in critical care units of tertiary care centers.

An educational framework for the NP curriculum is proposed (See Figure 1).

Figure1. Nurse Practitioner in Critical Care – An Educational Curricular Framework



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II. PROGRAM DESCRIPTION

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The NP program is a Nursing residency program with a main focus on Competency based training. The duration is of two years with the curriculum consisting of theory that includes core courses, advanced practice courses and clinical courses besides clinical practicum which is a major component (Refer Curricular framework).

III. AIM

The critical care NP program prepares registered BSc nurses for advanced practice roles as clinical experts, managers, educators and consultants leading to M.Sc degree in critical care NP

IV. OBJECTIVES

On completion of the program, the NP will be able to

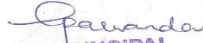
1. assume responsibility and accountability to provide competent care to critically ill patients and appropriate family care in tertiary care centres
2. demonstrate clinical competence / expertise in providing critical care which includes diagnostic reasoning, complex monitoring and therapies
3. apply theoretical, patho-physiological and pharmacological principles and evidence base in implementing therapies / interventions in critical care
4. identify the critical conditions using differential diagnosis and carry out treatment/interventions to stabilize and restore patient's health and minimize or manage complications independently or collaboratively as a part of critical care team
5. collaborate with other health care professionals in the critical care team, across the continuum of critical care

V. MINIMUM REQUIREMENTS TO START THE NP CRITICAL CARE PROGRAM

The institution must accept the accountability for the NP program and its students and offer the program congruent with the INC standards. It must fulfill the following requirements.

1. *Essentiality Certificate*

- a. If any institution opting to start NP program already has BSc (N) or MSc (N) program recognized by INC, it will be exempted from NOC (No Objection Certificate)/Essentiality Certificate for NP in critical care post graduate residency program from State Government


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- b. If the institution is having any University education program of training nurses and doctors or if they have DNB program, NOC will not be required to start NP program

2. *Hospital*

The hospital should be a parent tertiary care centre, with a minimum of 200 beds. It can have a medical college or nursing college

3. *ICU Beds*

The hospital should have a minimum of 4 ICUs namely medical ICU, surgical ICU, cardio/cardi thoracic ICU and Emergency care unit with a minimum of 5 beds each and total of 20 beds.

4. *ICU staffing*

- a. Every ICU should have a charge nurse with BSc or MSc qualification
- b. The nurse patient ratio should be 1:1 for every shift for ventilated patients
- c. For the rest of ICU beds the nurse patient ratio should be 1:2 for every shift
- d. Provision of additional 45% staff towards leave reserve
- e. Doctor patient ratio can be 1:5

5. *Faculty/ Staff resources*

- a. Clinical area: Full time qualified GNM with 6 years of experience in critical care nursing or BSc with 2 years experience in critical care nursing or MSc(Specialty-Medical Surgical Nursing/Pediatric Nursing/Obstetrics & Gynaecology Nursing) with one year critical care nursing experience (One faculty for every 10 students)
- b. Teaching faculty: Professor/Associate professor- 1(Teaching experience- 5 years post PG), Assistant professor- 1 (Teaching experience- 3 years post BSc)
- c. The above faculty shall perform dual role or a senior nurse with MSc qualification employed in the tertiary hospital.
- d. Guest lecturers: for pharmacology

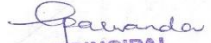
Preceptor student ratio -Nursing 1:10, Medical 1:10

6. *Physical and learning resources at hospital/college*

- a. One classroom/conference room at the clinical area
- b. Skill lab for simulated learning (hospital/college)
- c. Library and computer facilities with access to online journals
- d. E-Learning facilities

7. *List of equipment for ICU (enclosed) Appendix-1*

8. *Student Recruitment/Admission Requirements*


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- Applicants must possess a registered B.Sc nurse with a minimum of one year clinical experience, preferably in any critical care setting prior to enrollment.
- Must have undergone the BSC in an institution recognized by the Indian Nursing Council.
- Must have scored not less than 55% aggregate marks in the BSc program
- Selection must be based on the merit of an entrance examination and interview held by the competent authority

Number of candidates: 1 candidate for 4-5 ICU beds,

Salary: 1. In-service candidates will get regular salary

2. Salary for the other candidates as per the salary structure of the hospital where the course is conducted

Eligibility for appearing for the examination

Attendance: Theory, practical and Clinical – 100%

VI. EXAMINATION REGULATION

Classification of results

Pass: 50% pass in theory and Clinical Practicum

Second Division: 50-59%

First Division: 60-74%

Distinction: 75% and above

For declaring the rank, aggregate of two years marks will be considered

If a candidate fails in theory or practical, he/she has to reappear for the paper in which he/she has failed.

Maximum number of attempts = 2, Maximum period to complete the program = 4 years

Practicum: 6hours of examination per student

Maximum number of students per day = 5 students

Examination should be held in clinical area only

Examined by one internal and one external examiner

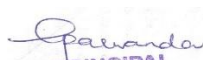
The examiner should be MSc faculty teaching the NP program with minimum two years of experience.


Dissertation

Submission of the research proposal: By 6 months in first year

Submission of the dissertation final: 6 months before completion of second year

Research guides: Main guide – Nursing faculty (3years experience) teaching NP program, Co guide: Medical preceptor


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Guide student ratio- 1:5 There should be a separate research committee in the college/hospital to guide and oversee the progress of the research (minimum of 5 members with principal or CNO-MScN)

Ethical clearance should be obtained by the hospital ethics committee

VII. Assessment (Formative and Summative)

- Seminar
- Written assignments/Term papers
- Case/Clinical presentation
- Nursing process report/Care study report
- Clinical performance evaluation
- Log book- (Competency list and clinical requirements) counter signed by the medical/nursing faculty preceptor
- Objective Structured Clinical Examination(OSCE)/OSPE
- Test papers
- Final examination

Scheme of Final Examination

S. NO	Title	Theory %			Practical %		
		Hours	Internal	External	Hours	Internal	External
I Year							
1	I Year Core Courses Theoretical Basis for Advanced Practice Nursing	3 hrs	50				
2	Research Application and Evidence Based Practice in Critical Care	3 hrs	30	70			
3	Advanced skills in Leadership, Management and Teaching Skills	3 hrs	30	70			
4	Advanced Practice Courses Advanced Pathophysiology & Advanced Pharmacology relevant to Critical Care	3 hrs	30	70			

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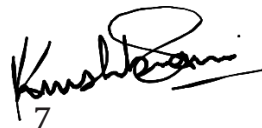
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5	Advanced Health/physical Assessment	3 hrs	30	70		50	50
1	II Year Specialty Courses Foundations of Critical Care Nursing Practice	3 hrs	30	70		100	100
2	Critical Care Nursing I	3 hrs	30	70		100	100
3	Critical Care Nursing II	3 hrs	30	70		100	100
4	Dissertation and viva	3 hrs				50	50


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VIII. CURRICULUM

Courses of Instruction

		Theory(Hrs)	Lab/Skill Lab(Hrs)	Clinical (Hrs)
I Year				
	Core Courses			
I	Theoretical Basis for Advanced Practice Nursing Research Application and Evidence Based	40		
II	Practice in Critical Care	56	24	336 7wks
III	Advanced skills in Leadership, Management and Teaching Skills	56	24	184 4wks
	Advanced Practice Courses			
IV	Advanced Pathophysiology applied to Critical Care	60		336 7wks
V	Advanced Pharmacology applied to Critical Care Advanced Health/physical Assessment	54		336 7wks
VI		70	48	576 12wks
TOTAL= 2208hrs		336 (7wks)	96 (2wks)	1776(37wks)
II year				
	Specialty Courses			
VII	Foundations of Critical Care Nursing Practice	96	48	552 11wks
VIII	Critical Care Nursing I	96	48	552 13wks
IX	Critical Care Nursing II	96	48	644 13wks
TOTAL=2208hrs		288 (6wks)	144 (4wks)	1748 (37wks)

No of weeks available in an year =52 -6 (Annual leave, Casual leave, sick leave = 6 weeks) =46 weeks x 48 hrs
= 2208 hrs

Two years = 4416 hrs

Instructional Hours: Theory = 624hrs, Skill lab= 240hrs, Clinical =3552hrs

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TOTAL= 4416 hrs

I year : 336-96-1776hrs (Theory-skill lab-clinical) [Theory + Lab=20%, Clinical=80%]

II year : 288-144-1776hrs (" ") [Theory + Lab=20%, Clinical=80%]

I YEAR =46 weeks/ 2208 hrs(46x48hrs)(Theory +Lab :7.5 hrs/week for 44wks =336+96 hrs*)

*Theory + Lab= 96 hrs can be given for 2wks in the form of introductory block classes and workshops

II YEAR=46 weeks/ 2208 hrs(46x48hrs) (Theory +Lab : 8.5hrs/week for 45wks=384+48hrs)

(1 week Block classes = 48 hrs)

CLINICAL PRACTICE

- A. Clinical Residency experience(A minimum of 48 hrs/ week is prescribed, however, it is flexible with different shifts and OFF followed by on call duty)
- B. 8 hours duty with one day Off in a week and on call duty one per week

Clinical placements:

I year: 44 wks (excludes 2 weeks of introductory block classes and workshop)

Medical ICU – 12 weeks

Surgical ICU – 12 weeks

Cardio/Cardio thoracic (CT) ICU – 8 weeks

Emergency Department - 6 weeks

Other ICUs (Neurology, Burns, Dialysis unit) - 6 weeks

II Year: 45wks (Excludes one week of block classes)

Medical ICU – 12 weeks

Surgical ICU – 12 weeks

Cardio/Cardio thoracic (CT) ICU – 8 weeks

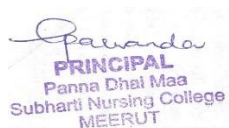
Emergency Department - 8 weeks

Other ICUs (Neurology, Burns, Dialysis unit) - 6 weeks

C. Teaching methods:

Teaching-theoretical, lab & Clinical can be done in the following methods and integrated during clinical posting

- Clinical conference


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- Case/clinical presentation
- In depth drug study, presentation and report
- Nursing rounds
- Clinical seminars
- Journal clubs
- Case study/Nursing process
- Advanced health assessment
- Faculty lecture in the clinical area
- Directed reading
- Assignments
- Case study analysis
- Workshops

D. Procedures/log book

At the end of each clinical posting, clinical log book (Specific competencies/Clinical skills & clinical requirements) has to be signed by the preceptor every fortnight (Appendix 2a, 2b, 3)

E. NP Critical Care Competencies (Adapted from ICN, 2005)

1. Uses advanced comprehensive assessment, diagnostic, treatment planning, implementation and evaluation skills
2. Applies and adapts advanced skills in complex and / or unstable environments
3. Applies sound advanced clinical reasoning and decision making to inform, guide and teach in practice
4. Documents assessment, diagnosis, management and monitors treatment and follow-up care in partnership with the patient
5. Administer drugs and treatments according to institutional protocols
6. Uses applicable communication, counseling, advocacy and interpersonal skills to initiate, develop and discontinue therapeutic relationships
7. Refers to and accepts referrals from other health care professionals to maintain continuity of care
8. Practices independently where authorizes and the regulatory framework allows in the interest of the patients, families and communities
9. Consults with and is consulted by other health care professionals and others
10. Works in collaboration with health team members in the interest of the patient
11. Develops a practice that is based on current scientific evidence and incorporated into the health management of patients, families and communities
12. Introduces, tests, evaluates and manages evidence based practice
13. Uses research to produce evidence based practice to improve the safety, efficiency and effectiveness of care through independent and inter-professional research
14. Engages in ethical practice in all aspects of the APN role responsibility
15. Accepts accountability and responsibility for own advanced professional judgement, actions, and continued competence
16. Creates and maintains a safe therapeutic environment through the use of risk management strategies and

quality improvement

17. Assumes leadership and management responsibilities in the delivery of efficient advanced practice nursing services in a changing health care system
18. Acts as an advocate for patients in the health care systems and the development of health policies that promote and protect the individual patient, family and community
19. Adapts practice to the contextual and cultural milieu

F. Institutional Protocol/standing orders based administration of drugs & ordering of investigations and therapies

The students will be trained to independently administer drugs and order diagnostic tests, procedures, medical equipment and therapies as per institutional protocols/standing orders. (Appendix 4 Standing orders). Administration of emergency drugs is carried out in consultation with concerned physician and endorsed later by written orders.

Implementation of curriculum-A tentative plan

I yr. Courses	Introductory classes	Workshop	Theory integrated in clinical practicum	Methods of teaching (Topic can be specified)
1. Theoretical basis for Advanced practice Nursing (40)	8hrs		1x32=32hrs	<ul style="list-style-type: none"> • Seminar / Theory application • Lecture (faculty)
2. Research Application and Evidence Based Practice in Critical Care (56+24)	8	40 (5days) +6hrs	1x26=26hrs	<ul style="list-style-type: none"> • Research study analysis/ • Exercise / Assignment (lab)
3. Advanced skills in leadership, Management and Teaching (56+24)	12	2hrs(Block classes)	1x26=26hrs 2.5x16=40hrs	<ul style="list-style-type: none"> • Clinical conference • Seminar Exercises/Assignment (lab)
4. Advanced Pathophysiology (60)			1.5x37=56hrs	<ul style="list-style-type: none"> • Case presentation • Seminar • Clinical conference
5. Advanced Pharmacology (54)			1x44=44hrs	<ul style="list-style-type: none"> • Nursing rounds • Drug study presentation • Standing orders / presentation
6. Advanced Health Assessment (70+40)	6hrs		2x26=52hrs 1.5x18=27hrs 1x12=12hrs 2x7=14hrs 2x2=4hrs	<ul style="list-style-type: none"> • Clinical demonstration (faculty) • Return demonstration • Nursing rounds • Physical assessment(all systems) • Case study

**I Year – Introductory classes = 1 week,
Workshop = 1 week ,44 weeks = 7.5 hrs/week**

II year courses 1wk Block classes (48hrs)	Theory integrated into clinical practicum	Methods of teaching
1. Foundations (96+48hrs) =144hrs	9hrs x11wks=99hrs	<ul style="list-style-type: none"> • Demonstration (lab) • Return demonstration (lab) • Clinical teaching • Case study • Seminar • Clinical conference • Faculty lecture
2. Critical Care Nursing 96+48hrs) =144hrs	9x16=144hrs -----	<ul style="list-style-type: none"> • Demonstration (lab) • Return Demonstration (lab) • Clinical conference / journal club • Seminar • Case presentation • Drug study(including drug interaction) • Nursing rounds • Faculty lecture
3. Critical Care Nursing II 96+48hrs) =144hrs	9x16=144hrs	<ul style="list-style-type: none"> • Demonstration (lab) • Return Demonstration • Nursing rounds • Clinical conference / journal club • Seminar • Faculty lecture

II year 45 wks – 8.5/9hrs/wk

Attendance: 100% in theory, practical and clinical.

Topic for every teaching method will be specified in the detailed plan by the respective teacher/ institution concerned

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