

ANMF-NCCDF Scholarship Award for Infection Control Nurse Training Program

INTRODUCTION

Infection prevention and control is scientific approach and practice designed to prevent harm caused by infection to patients and healthcare workers. It focuses on evidence-based practices and procedures that can prevent or reduce the risk of transmission of microorganisms. It is an essential part of the infrastructure of health care, especially patient safety programs. Prevention and control of healthcare-associated infections is an important focus at the local, national and international level. Infection prevention and control is an issue of health and safety; a necessary component of safe, high quality patient care and it is essential for the wellbeing of patients and staff.

Scenario of Hospital Acquired Infection (HAI)

People receiving health and medical care, whether in a hospital or clinic, are at risk of becoming infected unless precautions are taken to prevent infection. Nosocomial (hospital-acquired) infections are a significant problem throughout the world and are increasing (Alvarado 2000). For example, nosocomial infection rates range from as low as 1% in a few countries in Europe and the Americas to more than 40% in parts of Asia, Latin America and sub-Saharan Africa (Lynch et al 1997).

In one of the tertiary hospital of Kathmandu Nepal, prevalence of bacteria causing Hospital Acquired Infections was 11.83% in critical units. The most common site of infection was the urinary tract 35.8% (Rai et al 2017).

Above mentioned data shows that there was HAI globally since a long and that demands IPC measures and IPC program in place to control HAI and to prevent cross contamination. Infection prevention and control measures are the key element in the effectiveness of the treatment and better prognosis of patients especially in the critical care units, where critically ill patients are prone to develop infections. Nurses are the vital to prevent and control infections in healthcare setup.

Outbreak of the COVID 19 has emphasized and proved that Infection Control measures and practices are very crucial to prevent and control the Infection in Healthcare setup as well as in Community setting. The pandemic has proved that even the basic component

of Infection control that is proper hand hygiene has major role in the prevention and control of infection.

Mostly the hospitals in Nepal does not have infection control committee but are still practicing infection control activities like aseptic techniques, hand hygiene, bundle approach for prevention of VAP, CAUTI, SSI, CLABSI. Thus, Nepal Critical Care Development Foundation (NCCDF) has taken initiation to form Infection prevention and Control Team (IPC Nepal) in 2016. This team consists of enthusiastic doctors, nurses and other healthcare personnel from different hospitals of Nepal working collaboratively as moderators, lectures and organizers to sustain the program. IPC Nepal is conducting such modular program, one-day workshop in different hospitals to train health personals regarding infection control practices, which include Critical Care nurses too. This activity can play a vital role in the establishment of the infection control policies in health institutions creating awareness in nurses and doctors.

Along with the development of Infection Control Society of Nepal (ICSON) at 2019, with support of Critical Care Nurses Association of Nepal (CCNAN), ICSON has accredited / endorsed Infection Control Nurse Training Program (ICNTP) from 2019.

ICNTP will be of three months (Thirteen weeks) duration with different clinical rotations and hence the participant will be certified as Infection Control Nurse by securing more than 50%.

Organizational Background:

Nepal Critical Care Development Foundation (NCCDF) is Not for Profit, tax exempt social organization established at 2012 with an objective of developing Critical Care Medicine in Nepal and helping upgrade ICU services in the country.

The foundation aims to improve the availability of Critical Care Services in Nepal and facilitates education and training which assist to improve the care for critically ill patients.

NCCDF has been active in numerous events and activities. Namely, the foundation conducts various CME's and workshops, has been running 'BASIC for NURSES', 'Infection Prevention and Control', 'CPR for Nurses', 'Tracheostomy Care', 'Ventilator Associated Pneumonia' workshop for nurses and BASIC ICU Course for doctors through the

Simulation Center and supports the care of patients with ICU care box. In addition, NCCDF organizes a number of awareness activities like Sepsis Rally and Hand Hygiene Campaign.

GOAL

In Nepal, the training and education are concentrated in Kathmandu and thus this scholarship award aims to include nurses from different hospitals across Nepal outside Kathmandu Valley.

The goal of ANMF-NCCDF Scholarship Award for ICNTP is to train and certify a nurse from outside Kathmandu Valley to make a pool of infection control nurse that helps to maintain a safe environment for everyone by reducing the risk of the potential spread of disease, reduce the risk of hospital-associated infections. As infection is a major cause of human suffering. Even relatively minor infections can become more serious, leading to major infection and can, in some cases, lead to patient death. In addition to patient suffering, infection causes distress to family and friends. In order to protect patients and staff and to reduce the costs of healthcare-associated infections, it is necessary to prevent infections before they occur. Recent studies suggest that at least 55% of HAIs could be prevented through infection prevention and control strategies.

OBJECTIVES

Knowledge:

At the end of the Basic Module, the candidate shall have knowledge about following:

1. History and overview of Infection Prevention and Control
 - Definition and Importance of IPC
 - History of Infection and Prevention
 - Modern era of Infection Prevention and Control
 - Status and Scope of Infection prevention Nursing in Nepal
 - Infection prevention organizations and programs
2. Organizational structure
 - Organizational Structures
 - Roles of IPC committee and members
 - Organizations influencing practices
3. Epidemiology and Microbiology

- Epidemiology:
 - Definition of epidemiology
 - General Principles of Epidemiology
 - Outbreaks Investigation
 - Surveillance
 - Microbiology
 - Basics of Microbiology
 - Microbial pathogenicity and host response
 - Laboratory testing and diagnostics
 - Common organisms causing HCAI
 - Biofilms
4. Hand Hygiene
- Background, skin flora, hand contamination
 - Techniques of Hand Hygiene-hand rub, hand wash(medical and surgical)
 - When to perform
 - Factors affecting proper hand hygiene
 - WHO hand hygiene compliance and monitoring
 - Guidelines and improvement strategies
 - Principles of hand hygiene surveillance
5. Isolation precautions
- Transmission of infections
 - Principles
 - Types of precautions
 - Standard precaution
 - Transmission based precautions
 - Considerations and recommendations
6. HCAI
- Definition and Types of HCAI
 - VAP
 - Introduction
 - Diagnosis
 - Pathogenesis
 - Risk factors
 - Prevention Bundle
 - CLABSI

- Introduction
- Diagnosis
- Pathogenesis
- Risk factors
- Contamination sites and transmission
- CLABSI Bundle
- ✓ Peripheral site prevention
- ✓ Central site prevention

- SSI
 - Introduction
 - Diagnosis
 - Pathogenesis
 - Risk factors-Patient, operation, and environmental risk factors
 - Prevention Bundle

- UTI
 - Introduction
 - Diagnosis
 - Pathogenesis
 - Risk factors
 - Prevention Bundle

7. Aseptic Techniques

- I. Cleaning, Disinfection and Sterilization
- II. Isolation precautions
- III. Dialysis
- IV. Lower respiratory infections
- V. Special populations

Skills / Competency Demonstration

At the end of the Basic Module, the candidate shall be able to perform:

- Hand Hygiene –Hand Rub & Hand Wash Techniques
- Hand hygiene surveillance
- Use of PPE and isolation Precautions Techniques
- Preparation of hand sanitizer according to WHO
- Surgical drapping, gowning and gloving
- Disinfection and sterilization of Equipment's

At the end of the Basic Module, the candidate shall also be able to assist and manage during following procedures:

SELECTION CRITERIA

Nepal Critical Care Development Foundation (NCCDF) will find out ten potential Nurse from Outside Kathmandu Valley in this year 2022 for ANMF-NCCDF Scholarship Award. A bond is made between foundation and participants, as they have to work in that institution for a minimum of two years.

FINANICALS:

The following describes the total fund of the scholarship for ten Critical Care Nurses:

SN	Particulars	Amount (USD) For one participant	Total (USD) For ten participants
1)	Course Fee	350	3500
2)	Transportation Cost of Participants	160	1600
3)	Basic Remuneration for Participants 181*3 months	543	5430
4)	Administrative / Miscellaneous Cost (100*12 months)		1200
	TOTAL	1053	11730

Note: Participants themselves must manage Accommodation and Fooding Cost.

The total cost for this scholarship award is USD 11,730 (USD Eleven Thousand Seven Hundred Thirty only).

SUMMARY:

Infection Control now days has been a major concern in all over the world. Nepal lacks proper infection control protocol and most healthcare professionals are not serious regarding this issue. In Nepal, there are no more certified courses on Infection Control and Prevention so from this training there will be the pool of Infection Control Nurses all over the country, which improves the quality care as well as patient safety.

Knowledge, interventions, and skills once considered only necessary in intensive care are now an important component for Infection Prevention and control. Infection can cause pain, suffering and often permanent scarring. It is an essential, though often under-recognized and under-supported, part of the infrastructure of health care. The mission of Infection Prevention and Control in Health Care initiative is to assist members in reducing dissemination of infections associated within healthcare, by assisting with the assessment, planning, implementation and evaluation of national infection control policies. The focus of the training is to train nurses on how to prevent infections and control it. The participants after the training are supposed to provide support for infection control preparedness and response to public health emergencies of potential international concern.