

CRITICAL CARE FELLOWSHIP TRACK CURRICULUM

The Department of Medicine at SUNY Downstate subspecialty Fellowship in Pulmonary and Critical Care Medicine is now offering two Critical Care Fellowship tracks – Critical Care -Infectious Disease and Critical care –Nephrology Fellowship Track within the ACGME accredited Dual Subspecialty Training Program of Pulmonary and Critical Care Medicine at SUNY Downstate Medical Center.

In an effort to allow collaboration and pursuit of a single subspecialty Track (Critical care - Infectious Disease and Critical care –Nephrology Fellowship Track) within an ACGME accredited Dual Subspecialty Training Program (Pulmonary and Critical Care Medicine) our two critical care track positions provide Nephrology and Infectious Disease fellows with a unique training experience. This Critical Care Medicine Fellowship provides advanced education to allow fellows from other subspecialty- Infectious Diseases and Nephrology to train and pursue Critical Care Medicine within the ACGME accredited combined Pulmonary and Critical Care Medicine Program thereby serving our community with much needed well-trained Intensivists to take care of the aging population with complex medical conditions and comorbidities.

One (or two) Fellows will be accepted each year into each combined track, with some critical care training integrated into their first two years of their respective subspecialty in form of electives. In the Critical Care, training Year (as F3) there will be a heavy focus on pure critical care training encompassing all aspects of intensive care medicine. Please see our proposed rotation schedule- block Diagram for a typical distribution of the assignment of rotation as F3.

Participating Sites:

The Fellows (F3) are required to rotate through all (or most) during their Critical Care Medicine Training year.

Downstate Health Sciences University campus

- Kings County Hospital Center (NYC HHC)
- University Hospital of Brooklyn (SUNY)

Affiliated institutions

- Brooklyn Veterans Administration Medical Center (VA New York Harbor Health Care System)
- Coney Island Hospital (NYC HHC)
- NYU –Lutheran Medical center
- The program will be run under the directorship of Dr. Robert Foronjy. The Associate Program Director is Dr. Aaliya Burza. At each participating site There

is a sufficient number of faculty with current documented qualifications to instruct and supervise all fellows at that location. The Institution, the participating sites and the program also have adequate resources in terms of space, equipment and other personnel for fellow education and effective administration of the

Educational Program:

Each F3 fellow will be required to participate in the weekly didactic core conferences at SUNY DMC in addition to the conferences held at the participating sites.

Summer Series : This series of orientation lecture sets comprising of Attending driven lectures and workshops that covers a wide range of topics fundamental to the practice of Critical Care Medicine like airway management, introduction to bronchoscopy, ventilator management, capnography, acid-base balance, basic physiology.

Following the summer series, multidisciplinary clinical conferences are scheduled two days per week throughout the academic year.

These include:

- **Critical Care Core Conference:** Every Wednesday
- **Journal Club:** Once per month. This is one-hour review in the methodology and results of up-to-date publications critical care pulmonary, nephrology and Infectious diseases.
- **M&M Conference:** Monday morning once per month to discuss and highlight cases of interest and educational value.
- **Board Review Series:** this series takes place routinely throughout the academic year.
- **Internal Medicine Grand Rounds:** Weekly Department of Internal Medicine conference by SUNY DMC faculty and invited speakers
- **City-wide Case Conference (Briscoe Lung Club)** - this conferences is hosted by Weill Cornell Medicine with the Division of Pulmonary and Critical Care Medicine of various institutions sharing in the presentations on a rotating basis which include topics not limited to pulmonary but encompassing critical care including nephrology and or Infectious diseases
- **Research Lectures:** These lectures will be interspersed within the core conference lectures to advance fellows Knowledge of the basic principles of research ,including how research is conducted ,evaluated and applied.
- **QA/QI Presentations:** A series of the fellows scholarly activities in form of QA/QI projects under dedicated mentorship are highlighted and presented in the Month of May of each academic cycle.

There is the availability of “GoToMeetings” to enable maximum participation by all the fellows rotating at the affiliate hospitals.

ICU Rotations- Medical ICU and other Subspecialty ICU:

Each fellow is required to have 7-9 months of Medical ICU training of which at least 3 are in subspecialty critical care training (CCU, neuro ICU , SICU/Trauma or CT-ICU) .

The aim of the Medical ICU rotations is to provide the Fellows with training and education encompassing all aspects of critical care, including ARDS, PE, shock, respiratory failure, circulatory failure, and hypertensive emergencies, upper and lower GI bleeds, liver failure, hematological/oncological emergencies, renal disorders, perioperative critically ill patients, toxic and metabolic disorders. During these months, fellows will be supervised to competently perform medical, diagnostic and surgical procedures including airway management, use of variety of positive pressure ventilator modes, vent-weaning techniques, non-Invasive ventilation modes, and therapeutic flexible fiber-optic bronchoscopy procedures. The fellows will also be expected to perform lumbar punctures, thoracentesis, chest tubes, emergency cardioversion, insertion of dialysis catheters central and arterial lines if not already done during their respective internal medicine residency programs. The F3 Fellow by the beginning of the second half of the academic year is expected to be a Junior attending leading MICU team rounds and reviewing action plans with the attending physician and also participate in end-of-life and palliative care discussions. This graduated responsibility provides the fellow more autonomous growth and confidence in handling an ICU upon graduation.

Fellows rotating through the **SICU/Trauma Unit** will help manage surgical pre and post-operative patients , participate in trauma codes, and help run the Trauma ICU.

Cardiovascular/Thoracic ICU rotation - The fellow will gain experience with flow directed pulmonary artery catheters, post-operative care of cardiothoracic patients, and manage the care of those patients admitted to the intensive care unit following coronary artery bypass graft surgery, valvular heart surgery, and thoracic surgery. The fellow will also gain experience in ECMO, Impella and introduction to VAD .The CT-ICU at UHB is one of the few centers in the country that does **Robotic-CABG**. This will be a unique experience for the fellows to participate in the cutting edge technology of robotic surgeries.

Transplant ICU (SICU) –The UHB site also offers the fellows the opportunity to care for the renal transplant patients as well as pancreatic transplant who overlap between CTICU and MICU units. The multidisciplinary rounds between the medical and the surgical teams is a great educational value and an early training for the fellows who would be consulting intensivists in surgical ICU's in future. These rotations will benefit the renal and the ID trained fellows who will be able to bring value to the rotating teams.

Neurosurgical ICU – This rotation provides the fellow with instruction and experience in the diagnosis and management of variety of neurological illnesses (e.g. Intra cranial bleeds, strokes, prolonged mechanical ventilation, increased intracranial pressure) and will participate in bedside percutaneous tracheostomies.

CCU : The fellows can rotate through the CCU either at UHB or KCHC. This rotation will help them gain training with ACS patients, hemodynamic monitoring, emergency cardioversion, transcutaneous pacemakers, IABP (Intra Aortic balloon pumps).

Advanced Critical Care Echocardiography. The fellows rotating through the medical, CT-ICU and CCU will be introduced to ACCE via board eligible/board certified Faculty and mentored to gain NBE certification in ACCE. This will be a great advantage for the fellows after graduation.

Fellow Evaluation:

The fellows will be evaluated at the end of each rotation, which includes a formal evaluation process including assessment of patient care, medical knowledge, professionalism, practice-based learning system based practice and also competence in procedural skills.

The program will use critical care specific Milestones as one of the tools to ensure fellows are able to practice core professional activities without supervision upon completion of the program. These evaluations will be accessible through New-Innovations as a part of the fellow's formal record.

The Overall Learning and Working Environment:

The Critical Care Fellowship tracks – Critical Care -Infectious Disease and Critical care – Nephrology Fellowship Track within the Pulmonary And Critical Care Medicine Fellowship in Department of Medicine at SUNY Downstate aims to provide exceptional and rigorous critical care training while maintaining excellence in safety and quality care rendered to the critically ill patients, commitment to the wellbeing of the training Fellows and all members of the health care team and endeavor to achieve excellence in professionalism through faculty modeling of the effacement of self-interest in a humanistic environment that supports the professional development of the future Intensivist physicians of this community.

FIGURE A (1)

ROTATION COUNT OVERVIEW - Path A (2 CCM)

Rotation	Total count	F1	F2	F3	@CPF	@CPF/year
ICU (10)	360					
ICU - CCM	18			F3	9/F	9 each yr
ICU –PCCM	(360-18) 342	F1	F2	F3	17/F	5.5 each yr
Pulm (7)	168	F1	F2		10.5/F	5.5 each/year
SONO (6)	6	F1			0.5/F	0.5 each year

OR

FIGURE A (2)

ROTATION COUNT OVERVIEW - Path B (4 CCM)

Rotation	Total count	F1	F2	F3	@CPF	@CPF/year
ICU (10)	360					
ICU - CCM	36			F3	9/F	9 each yr
ICU –PCCM	(360-36) 324	F1	F2	F3	16/F	5 each yr
Pulm (7)	168	F1	F2		10.5/F	5.5 each/year
SONO (6)	6	F1			0.5/F	0.5 each year

OTHER ROTATORS

EM/IM-CCM- 1	8
EM/IM- CCM -2	4 (paired or unpaired)
Anesthesia –CCM	1-4 (paired or unpaired)

FIGURE B (1,2,3,4,5)

BLOCK DIAGRAMS OVERVIEW

Pulmonary Critical Care Medicine Fellowship along with CCM -ID, CCM-Nephrology Fellowship Tracks

(1)AY – 2019-2020

Fellowship year	Number
PCCM –F1	7
PCCM-F2	9
PCCM-F3	6
CCM-ID- F3	-
CCM-Neph-F3	-
TOTAL	22

(2)AY - 2020 – 2021

Fellowship year	Number
PCCM –F1	4
PCCM-F2	7
PCCM-F3	9
CCM-ID- F3	1
CCM-Neph-F3	1
TOTAL	22

(3)AY - 2021 – 2022

Fellowship year	Number
PCCM –F1	9
PCCM-F2	4
PCCM-F3	7
CCM-ID- F3	1
CCM-Neph-F3	1
TOTAL	22

(4)AY -2022 2023 (Pathway A)

Fellowship year	Number
PCCM –F1	7
PCCM-F2	9
PCCM-F3	4
CCM-ID- F3	1
CCM-Neph-F3	1
TOTAL	22

OR

(5) AY - 2022 – 2023 (Pathway B)

Fellowship year	Number
PCCM –F1	7
PCCM-F2	7
PCCM-F3	4
CCM-ID- F3	2
CCM-Neph-F3	2
TOTAL	22