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In This Issue:

- Message from the Governor
- Health Talk on Acute Medicine
- Laureate Award 2021
- National Award 2021
- ACP Annual Dinner 2021
- OSPE Book Launching Program
- Chapter Excellence Award
- Internal Medicine Meeting 2022
- Meeting Minutes of Advisory Council
- List of members in last six months
- List of fellows in last six months
- Regenerative Medicine
- Conclusion

Message from the Governor:

Greetings from ACP Bangladesh Chapter. It feels like we might finally be getting close to the light at the end of the tunnel but things are still far from over. How SARS-CoV-2 evolves over the next several months and years will determine what the end of this global crisis looks like — whether the virus morphs into another common cold or into something more threatening such as influenza or worse. A global vaccination push that has delivered nearly 8 billion doses is shifting the evolutionary landscape, and it's not clear how the virus will meet this challenge. Meanwhile, as some countries lift restrictions to control viral spread, opportunities increase for SARS-CoV-2 to make significant evolutionary leaps.

The Omicron variant of Covid-19 is driving a huge spike in fresh infections in Bangladesh. This variant is spreading more rapidly than other strains because it has more mutations than any other variant thus far. As the Omicron variant of COVID-19 continues to surge across the world, it is crucial that all countries receive lifesaving coronavirus jabs as quickly as possible.

If we can endure and push through with proper measures and regular vaccination with booster rollouts, we might finally be able to return to a semi normal life. However, there are still a few severe obstacles that we must overcome first. Vaccine rollout is still slow and a large portion of the population still did not receive the vaccine. With that out of the way, we are still hopeful that if we are given adequate distribution of vaccines, we can successfully navigate through the last push and emerge a stronger nation. While much is still uncertain, there is hope that things may look better in the future even if the current situation is worrying.



H.A.M. Nazmul Ahasan, MBBS, FCPS, FRCP (Edin and Glasg), MACP, ACP Governor

Health Talk on Acute Medicine:

ACP Bangladesh Chapter organizes masterclass series on Acute Medicine for students and clinicians as part of ACP Global Development Program as well as responsibility as an organization in the country. Program was targeted for undergraduate and postgraduate students and physicians from around the country. This series of classes on Acute medicine are being organized by Prof. Rubina Yasmin.

We used stream yard platform for the program and it was broadcasted in Facebook and YouTube at the same time. The program was arranged at 9.30 PM local time. We have already arranged 15 programs in total in this session and each program last for 90 minutes. There were question and answer session after main lecture. Around 200 participants were present in each session.

First lecture was taken by Prof. Ahmedul Kabir on 3rd of August 2021. His topic of presentation was 'Acute Medicine: Need, Current status and Hurdles'. He talked predominantly on various aspects and importance on Acute medicine and what limitations we have at different health setting with respect to emergency managements.

Here is the table showing the topic that were being discussed by the famous teachers. The topics were chosen highlighting the diseases or situations that we face most at the emergency setting of different hospitals around the country.

Date	Topic	Speaker
03.08.21	Acute Medicine: Need, Current Status and Hurdles	Prof. Ahmedul Kabir
05.08.21	Emergencies in Dengue Syndrome	Prof. Quazi Tarikul Islam
10.08.21	Emergencies in COVID-19	Prof. Md. Robed Amin
12.08.21	Diagnosis & Management of Life- threatening Emergency- Sepsis	Prof. Md. Titu Miah
17.08.21	Gastrointestinal Bleeding	Prof. Khan Abul Kalam Azad
19.08.21	Acute Pancreatitis	Prof. Shohael Mahmud Arafat
24.08.21	Acute Severe Asthma	Prof. MA Jalil Chowdhury
26.08.21	Acute Pneumonia	Prof. HAM Nazmul Ahasan
02.09.21	Acute Management of Myocardial Infarction	Prof. Abdul Wadud Chowdhury
09.09.21	Acute Kidney Injury	Prof. Brig Gen (retd) Mamun Mostafi
21.10.21	Emergencies in Diabetes Mellitus	Prof. Khawaza Nazimuddin
04.11.21	Hypertensive Emergencies	Prof. Md. Mujibur Rahman
11.11.21	Insecticide Poisoning	Prof. MA Sattar
18.11.21	Derangement of Electrolytes	Prof. Md. Shafiqul Bari
25.11.21	Acid Base Disorder	Dr. Raihan Rabbani

Laureate Award 2021

The Laureate Award honors ACP Fellows and Masters who have demonstrated their commitment to excellence in medical care, education, research and service to their community, their Chapter and the College. In the year 2021, ACP-Bangladesh chapter advisory council decided to honor

Prof. MA Jalil Chowdhury with prestigious Laureate award for his excellent academic career and contribution to ACP.



Pic: Prof. MA Jalil Chowdhury receiving prestigious Laureate award

National Award 2021

ACP offers national award each year to recognize excellence and contributions to internal medicine. This award is bestowed for outstanding, lifetime work in clinical medicine which has been innovative and/or had a regional or national impact. In 2021, ACP Bangladesh Chapter advisory council decided to honor Prof. MA Faiz with prestigious National award for his integrity, positions of honor, impact in practice or in medical research, or other attainments in science or in the art of medicine.



Pic: Prof. MA Faiz receiving prestigious National Award

ACP Bangladesh Chapter Annual Dinner 2021

ACP Bangladesh Chapter arranged an annual dinner for the second time and it was successfully held on December 10th, 2021 at the Dhaka Club. All Masters, Fellows, advisory council members and their spouses were invitee in the program. This year's annual dinner attracted a total of about 250 participants at the dinner function. The annual dinner event started with welcome speech, followed by scientific seminar which has a theme of 'Physician Well-being'. The speaker at this seminar was Prof. M A Jalil Chowdhury and the session was chaired by Prof. Quazi Tarikul Islam.

After that, Award giving ceremony was held where appreciation crests were given to the awardee. Following is the list of the awardee who were being awarded for their contribution, hard work and outstanding work in science as related to internal medicine at different level.

Award	Name of the Awardee
National Award	Prof. MA Faiz
Laureate Award	Prof. MA Jalil Chowdhury
Governor Elect	Prof. Khan Abul Kalam Azad
New Master of ACP	Prof. Khan Abul Kalam Azad
Speaker of the Scientific Seminar	Prof. MA Jalil Chowdhury
New Fellow of ACP	Abdul Hannan Miah
New Fellow of ACP	Aminur Rahman
New Fellow of ACP	Durba Halder
New Fellow of ACP	Kazi Ahmed
New Fellow of ACP	Kazi Mohammad Abrar Hasan

New Fellow of ACP	Md Kamrul Hasan Lohani
New Fellow of ACP	Md Nur- A- Alom Khan
New Fellow of ACP	Md Nurul Amin Miah
New Fellow of ACP	Md Rezaul Karim
New Fellow of ACP	Md Sakhawat Hossain
New Fellow of ACP	Mohammad Aminul Islam
New Fellow of ACP	Mohammad Ferdous Ur Rahman
New Fellow of ACP	Mohammad Mahmuduzzaman
New Fellow of ACP	Mohammad Motiur Rahman
New Fellow of ACP	Mohammad Rezaul Karim Talukder
New Fellow of ACP	Mohammad Abdur Rahim
New Fellow of ACP	Nazrul Kabir Qureshi
New Fellow of ACP	Prof. Shyamal Sarker
New Fellow of ACP	Rubina Yasmin
New Fellow of ACP	Samira Rahat Afroze
New Fellow of ACP	Sunil Kumar Biswas
First Asian ACPCON'21 Doctors Dilemma- Runner up	Dr. Mahabub Mayukh Rishad
First Asian ACPCON'21 Abstract Winner	Dr. Mohammad Mehfuz- E- Khada
First Asian ACPCON'21 Abstract Winner	Dr. Arfa Rahman

Close to the end of the Annual dinner, the organising chairman and also the Governor of ACP Bangladesh Chapter Prof. HAM Nazmul Ahasan thanked all the dinner participants, their spouses and sponsors for their support in his closing speech. After that a small Raffle draw session was held and delicious dinner were served.



Pic: Prof. Khan Abul Kalam Azad is receiving the crest as Governor elect and the reception for the Mastership of ACP, respectively



Pic: Speech from Prof. Billal Alam, President of Bangladesh Society of Medicine; Prof. HAM Nazmul Ahasan, Governor ACP Bangladesh Chapter; Prof. Khan Abul Kalam Azad, Governor Elect and Prof. Quazi Tarikul Islam, Former Governor, ACP Bangladesh chapter, respectively



Pic: Reception of New Fellow



Pic: Dr. Mahbub Mayukh Rishad is receiving crest of First Asian ACPCON'21 Doctors Dilemma- Runner up and Dr. Afrah of First Asian ACPCON'21 Abstract Winner



Pic: Memories from the Reception of New Fellow and Annual Dinner

OSPE Book Launching Program

Last year, ACP Bangladesh Chapter had organized masterclass series on OSPE (Objective Structured Practical Examination) program in different medical colleges for clinical students, trainee and residents as part of ACP Global Development Program. After completion of the classes, a formal book has been compiled based on this masterclass series program.

The title of the book is 'Objective Structured Practical Examination for Clinical Students, Trainees & Residents'; comprises 9 different chapters and contain total 187pages. The book includes great collection of imaging including different X rays, ECG, MRI, CT scan; clinically oriented illustrations with full explanations. Also, this comprehensive review OSPE book containing different clinical vignette questions will be a very helpful study tool for the clinical students. By practicing it one can easily unlock the untouched areas of the memories that may help them to create better career with good patient outcome The book has been written in an easy- understandable, clear format and reviewed by top faculty, this indispensable guide provides students with a blueprint of all the content they're likely to find on the exam.

This OSPE book is being launched by a grandiose opening ceremony at the ACP Annual dinner that was being held on December 10th, 2021.



Pic: Official Book Launching

Chapter Excellence Award:

We are pleased to announce that our chapter received the Chapter Excellence Award for the 5th time a row! The Bronze award recognizes chapters that achieve basics in chapter management. In order to achieve the Chapter Excellence Award, chapters must meet twenty-one Bronze criteria. Criteria include such activities as being involved in advocacy activities, communicating with members, having a chapter/regional scientific meeting along with a planning committee, having a sound financial structure in place, recruiting and advancing members and having an awards committee that identifies candidates for local or national awards.



Pic: Celebration of Chapter Excellence Award

ACP Internal Medicine Meeting 2022

The upcoming Annual ACP internal medicine meeting will be held from 28-30th April'22 in Chicago, USA. This conference expects to update knowledge and skills, discuss timely topics, share ideas, and exchange information alongside the internal medicine colleagues, globally. Expert faculty will present over 200 scientific and practice-related sessions that invite individuals to discover new ways to improve medicine specialists' techniques and patient care. And, as always, this event will help professionals meet their learning objectives while earning CME credits and MOC points.

Few delegates from Bangladesh will be expected to join the meeting. And also new Fellows along with Masters, Laurette awardees and Fellows of 2020 and 2021 who missed the Convocation Ceremony of 2020-21(Virtual) due to ongoing pandemic are also eligible to attend the Convocation of 2022 in person.

Bangladesh society of medicine is also collaborating with ACP Bangladesh chapter to make the travel safe and smooth for the attendees from Bangladesh for the upcoming ACP Internal Medicine Meeting 2022.



Meeting Minutes of Advisory Council

A meeting of advisory council of ACP Bangladesh Chapter was held on 17th November, 2021 at 12:00 pm. Prof. H A M Nazmul Ahasan, Governor, ACP Bangladesh Chapter, Prof. Khan Abul Kalam Azad, Governor Elect, ACP Bangladesh Chapter, and the members of the advisory council were participated in the meeting.

Agendas:

1. Discussing about the activities of ACP Bangladesh Chapter in 2020-21.
2. Planning for future academic activities
3. Planning to organize an international conference
4. Miscellaneous

In the beginning, Prof H A M Nazmul Ahasan, Governor ACP Bangladesh Chapter, informed the advisory council about the activities of the chapter in the year 2021. Following activities were mentioned-

1. Till date, total number of the members of ACP Bangladesh Chapter is 1337. Of them, masters- 4, number of fellows- 108, members- 535, resident members- 23, undergraduate students member- 602 and others- 65.
2. A By-laws committee was formed with Professor Rubina Yesmin as the chairperson.
3. In the year 2020-21, both actual and virtual academic programs were arranged by ACP Bangladesh Chapter. Online teaching programs were undertaken, where renowned teachers of different medical colleges talked about OSPE and clinical skill development both for the undergraduate and postgraduate students.
4. ACP Bangladesh Chapter organized the virtual 'Health Talk' program on different medical topics, in which learned medical experts discussed about many health issues.
5. A book is being compiled on the basis of the classes on OSPE.
6. The annual dinner of ACP Bangladesh Chapter will be held on 10.12.21 at Dhaka Club. All fellows and members as well as the members of the executive committee of Bangladesh Society of Medicine will be invited in the annual dinner. The winners of the Doctors Dilemma competition and the abstract competition of the ACP ASIACON, 2021 held in India will also be invited.
7. The next international conference of ACP will be held from 28-30 April, 2022 at Chicago, USA. ACP Bangladesh Chapter will communicate and inform executive committee of Bangladesh Society of Medicine to attend the international conference of ACP.
8. An international conference should be arranged by ACP Bangladesh Chapter because it is one of the pre requisites for its existence. As the program will be supported by Bangladesh Society of Medicine, letters have been sent to the president and the secretary general of Bangladesh Society of Medicine to take initiatives to arrange this conference.

Decisions taken in the meeting-

1. To arrange the 1st international conference of ACP Bangladesh Chapter in the form of ACP Asian Conference in 2022, a committee will be formed that will communicate with Bangladesh Society of Medicine in an urgent manner.

Finally, Governor, ACP Bangladesh Chapter thanked all the participants for attending the meeting and requested to join the next meeting.



Pic: Advisory Council Meeting

List of New Members in Last Six Months

04089147	Khaled Mahmood, MBBS MD
04175110	Mahmood Parvez, MBBS
04207104	Malakar Jayanta, MBBS
04176129	MANASH SHEKHAR MOJUMDER, MBBS
04204048	Marjoa Humaira Mekhola, MBBS MD
04206494	Md Shofikul Islam, MD
04214341	Md Abdullah Al Sayeef, MBBS
04205862	Md Ali Afzal, MD
02539907	MD EMRAN HOSSAIN, MD
04202416	MD ERSHADUL HOQUE, MBBS
04213472	MD JAHANGIR KABIR, MBBS
04177461	MD JAHEDUL ISLAM, MD
04208160	MD JALAL HOSSAIN, MBBS
04203450	Md Liakat Ali, MD
04202298	Md Minhaj Uddin Bhuiyan, MBBS

04203461	Md Mizanur Rahman, MBBS
04177584	Md Mohi Uddin, MBBS
04212987	Md Mustafizur Rahman, MBBS
04161689	Md Nur Alam, MBBS
04163226	MD SAEED HOSSAIN, MBBS
04168980	Md Shafiul Alam, MBBS
04203451	MD Shahidur Rahman, MBBS
04206554	MD TOSDIKUR RAHMAN KHAN, MBBS
04177496	Md. Faysal Khan, MBBS
04083602	Md. Hadyetul Islam, MBBS
04161297	Md. Masudur Rahman, MBBS
04153964	MD. NOMAN HOSSAIN
04206639	Md. Rafiqul Islam, MBBS MD PhD
04210575	Md. Sadiquir Rahman, MBBS
03672178	MD.AHSANUL HAQUE
04179457	Mehedi Hasan, MD
04162151	Meherunnesa Mukta, MBBS
04212930	Miah Wahiduzzaman, MBBS
04204702	MOHAMMAD ABDUL AWAL, MBBS
04205891	MOHAMMAD ABDUR RAHIM, MBBS
04161665	Mohammad Golam Rob Mahmud, MBBS
04177597	Mohammad Mizanur Rahman, MBBS
04176132	MOHAMMAD MOSHIUR RAHMAN MAMUN, MBBS
04209148	Mohammad Mostafizur Rahman, MD
04202874	MOHAMMAD NAZMUL HAQ, MBBS
04206132	Mohammad Safayat Kamal, MBBS
04205793	Mohammad Sayem, MBBS
04177238	Mohammad Shafiqul Islam
04213457	MOHAMMAD SHAHEEN KABIR, MBBS
04213480	MOHAMMED FAZLUL WAHAB CHOWDHURY, MBBS
04213303	Mohammed Ruhul Kabir, MBBS MD
04177605	Muhammad Kutub Uddin, MBBS
04204936	Muhammad R Islam, MBBS MD
04208162	MUHAMMAD TANVIR MOHITH, MBBS
04155838	NAHIDA ZAFRIN, MD
04123738	Nira Ferdous, MBBS
04211720	Noor Mohammed, MBBS
04160605	Rajat Shuvra Paul, MBBS MD
04202477	RAJIB BHOWMIC, MBBS
04213471	RASHEDUL ISLAM, MBBS
04172019	RASHEDUN NABI HASAN, MBBS
04160616	M Rahid Sarwar, MBBS
03812435	SAKIT MAHMUD, MBBS MD
04208161	SHUKDEV PAUL, MBBS
04205790	Syeda Zinia Zafrin, MBBS
04160601	Tahmida Khanom, MBBS

04209143	Tahsina Jasmine, MD
04204428	Taslima Zaman, MBBS MD
04214137	Tridip Kanti Barman, MBBS
04204705	ZAHER HOSSAIN, MBBS

List of Fellows in Last Six Months

03192552	Mohammad Mahmuduzzaman, MBBS MD FACP
03646201	Mohammad Motiur Rahman, MBBS FACP
03784515	Mohammad Rezaul Karim Talukder, MBBS MD FACP
03355651	Muhammad Abdur Rahim, MBBS FACP

Regenerative Medicine: Future Healing

Regenerative medicine is a branch of medicine that develops methods to regrow, repair or replace damaged or diseased cells, organs or tissues. It includes the generation and use of therapeutic stem cells, tissue engineering and the production of artificial organs. This branch of medicine brings together experts in biology, chemistry, computer science, engineering, genetics, medicine, robotics, and other fields to find solutions to some of the most challenging medical problems faced by humankind. The goal of this approach is to find a way to cure previously untreatable injuries and diseases.

Fields of regenerative medicine are

- Tissue engineering and biomaterials
- Cellular therapy
- Medical devices and artificial organs

Tissue engineering and biomaterials

Tissue engineering and regenerative medicine are interdisciplinary fields aimed at developing biological substitutes to restore, maintain, improve tissue function, or replace diseased and damaged tissues. Millions of patients have been treated with some form of tissue engineered devices, yet the field is in its infancy. Tissue engineering is closely associated with applications that repair or replace portions of or whole tissues. Often, the tissues involved require certain mechanical and structural properties for proper functioning. The term has also been applied to efforts to perform specific biochemical functions using cells within an artificially-created support

system (e.g. an artificial pancreas, or a bio artificial liver). Cells, scaffolds, and growth-stimulating signals are three key components for engineering tissue substitutes. Whereas tissue engineering cultures tissue *in vitro*, regenerative medicine combines tissue engineering with other strategies, including cell-based therapy, gene therapy, and immunomodulation, to induce *in vivo* tissue regeneration. Biomimetic tissue constructs are also developed as *in vitro* models for drug screening and disease modeling.

Biomaterial design for bone and cartilage tissue engineering has made great strides in the past decades and holds tremendous impact for future clinical applications. Continued growth of this field hinges in part on the development of new materials and improved scaffold processing techniques. Calcium phosphate ceramics, bioactive glasses, metal-based materials, polymers and composites are used as biomaterials for *in vivo* bone tissue engineering applications. Several other biomaterial scaffolds (single phase, biphasic & multiphasic and gradient) are being increasingly studied and used in osteochondral tissue engineering. Recent advances in the field of biomaterials suggest a promising future for their application in bone and cartilage tissue engineering.

Cellular therapy

Cell therapy includes stem cell- and non-stem cell-based, unicellular and multicellular therapies, with different immunophenotypic profiles, isolation techniques, mechanisms of action, and regulatory levels. Many millions of adult stem cells are found in every human. Our body uses stem cells as one way of repairing itself. Studies have illustrated that if adult stem cells are harvested and then injected at the site of diseased or damaged tissue, reconstruction of the tissue is feasible under the right circumstances. These cells can be collected from blood, fat, bone marrow, dental pulp, skeletal muscle and other sources. Cord blood provides yet another source of adult stem cells. Scientists and clinicians are developing and refining their ability to prepare harvested stem cells to be injected into patients to repair diseased or damaged tissue.

Mechanism of action:

There are two main principles by which cells facilitate therapeutic action:

- Multipotent or unipotent cells differentiate into a specific cell type in the lab or after reaching the site of injury. An example of this is the use of cells to replace cardiomyocyte

after myocardial infarction to facilitate angiogenesis in ischemic limb disease or the production of cartilage matrix in intervertebral disc degeneration.

- Cells that have the capacity to release soluble factors such as cytokines, chemokines, and growth factors which act in a paracrine or endocrine manner. Examples of this include cells that secrete factors which facilitate angiogenesis, anti-inflammation, and anti-apoptosis.

Types of cells:

- Human embryonic stem cells
 - These cells are being investigated as the basis for a number of therapeutic applications, including possible treatments for diabetes and Parkinson's disease.
- Neural stem cell therapy
 - Neural stem cells are the subject of ongoing research for treating a number of neurological disorders such as Parkinson's disease and Huntington's disease.
- Mesenchymal stem cell therapy
 - These cells are immunomodulatory, multipotent and fast proliferating and can be used for a wide range of treatments including immune-modulatory therapy, bone and cartilage regeneration, myocardium regeneration and the treatment of Hurler Syndrome.
- Hematopoietic stem cell transplantation
 - Hematopoietic stem cells (HSCs), derived from bone marrow or blood, are cells with the abilities to self-renew and to differentiate into all types of blood cells, especially those involved in the human immune system. Thus, they can be used to treat hematologic and immune disorders. In addition to bone marrow-derived HSCs, the use of alternative sources such as umbilical cord blood and peripheral blood stem cells has been increasing.
- Differentiated or mature cell transplantation
 - This tends to involve specialized cells able to facilitate specific function in the patient's body (for example, transplantation of cardiomyocytes to repair heart function or islet cell transplantation for establishing insulin homeostasis in

Diabetes patients) or support/regenerate the extracellular matrix production of specific tissues (for example intervertebral disc repair by transplanting chondrocytes).

Medical Devices and Artificial Organs

When an organ fails, the predominant clinical strategy is to transplant a replacement organ from a donor. The principal challenges are the availability of donor organs, and the need for immunosuppression drugs—which have side effects. Improved health care has resulted in an increased life span for the general population and, when coupled with a growing shortage of donor organs, makes it clear that organ assistance and substitution devices will play a larger role in managing patients with end-stage disease by providing a bridge to recovery or transplantation. In the U.S. alone, the annual need for organ replacement therapies increases by about 10 percent each year. The good news is that the field of medical device and artificial organ development is redefining what is believed to be possible for augmenting or replacing organ function. Once constructed only of synthetic components, these devices may now be either fully artificial or bioartificial- so-called “biohybrid organs” – a combination of biologic and synthetic components, often incorporating multiple technologies involving sensors, new biomaterials, and innovative delivery systems. Some devices – such as the left ventricular assist device and bioartificial liver – will provide assistance while new therapies incorporating stem cells, gene therapy, or engineered tissues are employed to repair or replace the damaged organ. Until these new therapies can be developed and tested, medical devices will play a crucial role in facilitating organ recovery and, perhaps, organ salvage through natural repair mechanisms. Where organ recovery is not possible, artificial organs – when fully refined – will provide a substitute for natural organs.

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Conclusion:

On November 26, 2021, WHO reached deeper into the Greek alphabet to declare Omicron a new SARS-CoV-2 variant of concern. The world's reaction has been an unpleasant mixture of dread, fatigue, and déjà vu. Almost two years into a pandemic that has claimed more than five million lives and affected billions more, people everywhere are finding it hard to summon the energy for another chapter in the story. During this crisis, hope can be a powerful source of reassurance. The key to the end of the pandemic is to have an immunity to this virus, preventing it from replicating, preventing it from mutating is how we get to the end. It's getting the whole world access to vaccinations this year, making sure that we get rid of the misinformation that's out there and everybody gets vaccinated. While the world may never go back to being the same, we hope that there is a brighter future ahead once vaccine rolls out properly. ACP Bangladesh Chapter hopes that the world can enter into a better, post-covid era soon.

Prof. HAM Nazmul Ahasan Governor, ACP-Bangladesh Chapter.