As the current pandemic threatens to divert valuable resources from children’s surgical care to other pressing public health and clinical priorities, the Global Initiative for Children’s Surgery sought input from colleagues worldwide on what were the biggest challenges facing them and what GICS could do to help. We recognize this is a rapidly evolving, dynamic situation with most countries and hospitals facing different sets of challenges. In this follow-up session, we ask our panelists how GICS could help with the following:

- Educational resources
- Guidelines
- Backlog of patients
- Research

See our website for extensive COVID-19 resources  
www.GICSurgery.org
Thanks to our Partners
Mitigating the Impact of COVID-19 on Children’s Surgery

Emmanuel Ameh, Paediatric General Surgeon, Nigeria, GICS Chair
Kokila Lakhoo, Paediatric General Surgeon, Oxford, UK, GICS Past Chair

PREVIOUS WEBINAR:

What are the greatest challenges facing you?
What can GICS do to help?
What are the greatest challenges facing you?

• Cancellation of elective operations without proper guidelines on which cases should be delayed

• No guidance on when to resume elective surgery, the rate at which to resume, and which cases should be performed first

• A large backlog of cases to be done when elective surgery resumes

• Cessation of outreach and surgical visiting teams
What are the greatest challenges facing you?

• Late presentation for emergent conditions
• Increased length of stay due to late presentations
• Less endoscopy and MIS
• Treatment of children by less-experienced providers at local hospitals
• Inability to see patients with congenital anomalies in clinics in a timely fashion
What are the greatest challenges facing you?

• Cessation of education of trainees and medical students
• Unavailability of COVID-19 testing
• Shortage of appropriate PPE
• Lack of guidelines for use of PPE
• Infection and death of HCWs
• Anxiety and fear of HCWs
How could GICS help with the following?

- Educational resources
- Guidelines
- Backlog of patients
- Research
Action Planning Forum: Mitigating the Impact of COVID-19 on Children’s Surgery
Mitigating the Impact of COVID-19 on Children’s Surgery

Kenneth Wong, Paediatric General Surgeon, Hong Kong

How could GICS help with educational resources?

• Education for patients and carers
Mitigating the Impact of COVID-19 on Children’s Surgery

Kenneth Wong, Paediatric General Surgeon, Hong Kong
How could GICS help with guidelines?

• Pre-op testing → What is the best test? How?
Mitigating the Impact of COVID-19 on Children’s Surgery

Kenneth Wong, Paediatric General Surgeon, Hong Kong

How could GICS help with backlog of patients?

• Raise funding for:
  • Extra equipment
  • PPE
  • COVID-19 testing

• Redistribute cases to other units to catch up?
Mitigating the Impact of COVID-19 on Children’s Surgery

Kenneth Wong, Paediatric General Surgeon, Hong Kong
How could GICS help with research?

- Details of backlog of operations
- Long-term effects of pandemic on children
Mitigating the Impact of COVID-19 on Children’s Surgery

Leecarlo Millano, Paediatric General Surgeon, Jakarta, Indonesia

How could GICS help with educational resources?

• Safety of conducting surgical operations on children
  • Laparoscopy, thoracoscopy

• Safety of delivering teaching materials for residents
  • Currently delivering lectures for residents through online meetings
Mitigating the Impact of COVID-19 on Children’s Surgery

Leecarlo Millano, Paediatric General Surgeon, Jakarta, Indonesia
How could GICS help with guidelines?

• Protocols for safe pre-op, intra-op, post-op care
Mitigating the Impact of COVID-19 on Children’s Surgery

Leecarlo Millano, Paediatric General Surgeon, Jakarta, Indonesia

How could GICS help with backlog of patients?

• Development of protocols during the pandemic
• Teaching of residents, dissemination of knowledge
• After elective operations resume:
  • Assist in the training of surgeons
  • Exchange of knowledge and skills through online media
• After travel restrictions lifted:
  • Support developing countries through collaboration of research and training of pediatric surgeons
Mitigating the Impact of COVID-19 on Children’s Surgery

Leecarlo Millano, Paediatric General Surgeon, Jakarta, Indonesia

How could GICS help with research?

• Research on safety of procedures
  • What safe alternatives can we apply to keep meeting the demand of pediatric surgery, at the same time keeping the patient and the health workers safe?

• Research on safe alternatives
  • For instance, the use of laparoscopy is safer than laparotomy during the pandemic
EDUCATION FOR GICS MEMBERS

• Topics
  • Updates on the various topics of pediatric surgery and its subspecialties
  • Tumor Board conferences
  • “How I do it” videos

• Format
  • Webinar, teleconference livestreaming, YouTubes, etc
EDUCATION FOR TRAINEES/FELLOWS

• Topics
  • Didactic lectures on neonatal and pediatric surgery
  • Teaching and surgical curriculum modules with Pre- and Post-Tests
  • Skills simulation training videos for trainees

• Format
  • Webinar, Zoom, or Webex conferences
Mitigating the Impact of COVID-19 on Children’s Surgery

Beda Espineda, Paediatric General Surgeon, Philippine Children’s Medical Center

How could GICS help with guidelines?

- How to prepare patients prior to surgery
- Role and importance of RT-PCR testing, other types of rapid antibody testing
- Prioritization of surgical cases when scheduling in the OR
- Issues on the correct and proper physical set up of the operating rooms and anesthesia unit
- Issues of safety of all health care workers and other personnel in the OR, anesthesia, and PACU
How could GICS help with backlog of patients?

- Design and provide guidelines on how to increase the census of surgical cases and minimize the backlog
- Send or provide funds to LMICs to purchase much-needed PPEs, goggles, and other surgical materials
- After travel restrictions lifted:
  - HIC surgeons should continue to support LMIC providers to attend and participate in conferences/conventions
Mitigating the Impact of COVID-19 on Children’s Surgery

Beda Espineda, Paediatric General Surgeon, Philippine Children’s Medical Center

How could GICS help with research?

• Profile of pediatric surgical cases done during pandemic in both HICs and LMICs
• Factors affecting prognosis and survival of COVID-19 pediatric surgical cases done during emergent and elective cases
Mitigating the Impact of COVID-19 on Children’s Surgery

Beda Espineda, Paediatric General Surgeon, Philippine Children’s Medical Center

How could GICS help with research?

• What has been gathered already?
  • Data on the number and types of cases, and outcomes of emergency cases done during this 4 months lockdown

• What is the best means of gathering this information?
  • REDCap multicenter studies

• How can GICS help?
  • GICS could initiate and fund a multinational international study by commissioning a research group utilizing the REDCap data collection system
Mitigating the Impact of COVID-19 on Children’s Surgery

Lubna Samad and Maryam Aftab, Paediatric General Surgeons, Karachi, Pakistan

How could GICS help with educational resources?

• Format
  • Interactive sessions, small group sessions, no webinars!

• Topic
  • Precautions, risk categorization of cases, management
Mitigating the Impact of COVID-19 on Children’s Surgery

Lubna Samad and Maryam Aftab, Paediatric General Surgeons, Karachi, Pakistan

How could GICS help with guidelines?

• Elective surgeries
  • What is the best practice for these cases (e.g., hernia, circumcision)

• Precautions for surgery of COVID-19 and non-COVID-19 patients

• Guidelines on laparoscopic surgery

• Surgical manifestations secondary to COVID-19
Mitigating the Impact of COVID-19 on Children’s Surgery

Lubna Samad and Maryam Aftab, Paediatric General Surgeons, Karachi, Pakistan

How could GICS help with backlog of patients?

- Financial resources for overtime in public sector facilities
- Support at all HR levels, not just surgeons
Mitigating the Impact of COVID-19 on Children’s Surgery

Lubna Samad and Maryam Aftab, Paediatric General Surgeons, Karachi, Pakistan
How could GICS help with research?

• Community-based assessment of unmet need

• Impact of COVID-19 on surgical outcomes
Mitigating the Impact of COVID-19 on Children’s Surgery

Vrisha Madhuri, Paediatric Orthopedic Surgeon, India

How could GICS help with educational resources?

FOR POST-GRADUATES WHOSE TRAINING HAS COME TO A VIRTUAL HALT:

• Structured courses (2-3 times/week), which include practical exercises that allow them to acquire skills
  • GICS could develop certification courses in each subspecialty, providing a certificate at completion for a sense of achievement
  • Would require a lot of input from GICS faculty
  • Best done as a webinar with interactive component, such as exercises, tests, and participant responses

• Online theoretical courses and skills upgrades
• YouTube videos of procedures in each subspecialty, but not likely to be able to do this now due to high risk
Mitigating the Impact of COVID-19 on Children’s Surgery

Vrisha Madhuri, Paediatric Orthopedic Surgeon, India

How could GICS help with educational resources?

COVID-19 INFORMATION:

• Information about available PPE, drugs, and protocols for symptomatic and asymptomatic patients, bearing in mind that:
  • Each country and region has its own guidelines for PPE, testing, quarantine, and treatment
  • Some of these resources will not be available in all LMIC settings
  • LMICs can produce some things locally at low cost
• Online resource where all information and recommendations are in one place (see www.GICSurgery.org COVID-19 resources)
  • For example, D-dimer tests for hypercoagulopathy can indicate need for early anti-coagulation
Mitigating the Impact of COVID-19 on Children’s Surgery

Vrisha Madhuri, Paediatric Orthopedic Surgeon, India

How could GICS help with guidelines?

• Must have sufficient LMIC representation to know what is available and practical
• Need to have guidelines for all subspecialties
• Eventually each local setting will need to make its own guidelines, based on their needs and situation
• Repeat consultations could be managed via telemedicine or WhatsApp--if allowed, safe, and legal
• Safe documentation essential
  • GICS could help develop apps to incorporate documentation into patient medical records
• Might need to involve local providers to elicit some findings
Mitigating the Impact of COVID-19 on Children’s Surgery

Vrisha Madhuri, Paediatric Orthopedic Surgeon, India
How could GICS help with backlog of patients?

• Increasing workforce to address the backlog
  • Since building up workforce would take time, more likely existing workforce will work overtime and cancel leave
  • Could funding be provided for this extra work for local providers?

• Patients need money to travel back to referral centers
  • Many in Vellore had to be supported by donations for food and accommodation when their funds ran out
  • Consider individual donations from GICS members to support patients, with feedback on how the funds were used
Mitigating the Impact of COVID-19 on Children’s Surgery

Vrisha Madhuri, Paediatric Orthopedic Surgeon, India
How could GICS help with research?

WHAT ACTION-ORIENTED RESEARCH IS IMPORTANT?

• Data on number of patients unable to consult for primary visit, as well as repeat visits
  • Compare numbers during pandemic with previous 2 years
• Changes in the surgical case load profile
Mitigating the Impact of COVID-19 on Children’s Surgery

Vrisha Madhuri, Paediatric Orthopedic Surgeon, India
How could GICS help with research?

WHAT INFORMATION HAS ALREADY BEEN GATHERED?

• Percentage of patients unable to keep appointments
• Reduction in number of new patients and revisits
• Number of patients getting treatment by phone and telemedicine
WHAT INFORMATION SHOULD BE GATHERED NOW?

• Adverse outcomes
• Delay in starting essential treatments, such as casting clubfoot, delay in DDH surgery, delay in removal or application of 8 plate
• Financial stress assessment by interviewing families
• Review of patient records for last 6-12 months to assess how many are missing essential visits that might affect them adversely
Mitigating the Impact of COVID-19 on Children’s Surgery

Vrisha Madhuri, Paediatric Orthopedic Surgeon, India
How could GICS help with research?

WHAT IS THE BEST MEANS OF GATHERING THE DATA?

- Utilize students and provide incentives
- Contact through phones/email/social media
- REDCap could be used to gather multi-center data
Mitigating the Impact of COVID-19 on Children’s Surgery

Vrisha Madhuri, Paediatric Orthopedic Surgeon, India

How could GICS help?

- Provide person-to-person funding for severe distress in patients and doctors
- Set up multi-institutional studies to assess stress
- Develop software to identify and call back patients, to guide those who need essential follow-ups, such as tumors/plates/frames
- Assess local issues and fundraising to address these, as they vary from place to place
- Discussion on frugal innovation in areas of need
Mitigating the Impact of COVID-19 on Children’s Surgery

Sameh Shehata, Paediatric General Surgeon, Alexandria, Egypt

How could GICS help with education?

• Online webinars
  • Webinars dedicated to specific geographical locations to assess local problems
• YouTube videos
• Guidelines statements
  • Prioritization of backlog cases
Mitigating the Impact of COVID-19 on Children’s Surgery

Sameh Shehata, Paediatric General Surgeon, Alexandria, Egypt

How could GICS help with guidelines?

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<th>Setting priority of surgeries during COVID-19</th>
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<td>Guidelines For The Surgical Patients In wards</td>
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<td>Screening/testing of patients for surgery</td>
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<td>SOP’S For Operation Theatres</td>
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<td>SOPs for Anesthesia</td>
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Mitigating the Impact of COVID-19 on Children’s Surgery

Sameh Shehata, Paediatric General Surgeon, Alexandria, Egypt

How could GICS help with backlog of patients?

• Suggesting a guideline for prioritizing elective cases based on indication, age, potential for complication, local resources
• Fund raising to cover needed equipment and human task force to increase rates of OR list turnover to finish the accumulated backlog
• Fund raising to assist speedy resolution of the backlog
Mitigating the Impact of COVID-19 on Children’s Surgery

Sameh Shehata, Paediatric General Surgeon, Alexandria, Egypt
How could GICS help with research?

• Data needed
  • The exact volume of backlog and specific disease entities to be able to take informed decisions
  • The effect of delaying elective cases on increased morbidity

• We have collected the waiting lists with the number and diagnosis of cases

• The REDCap platform is an excellent way of online data collection and multicenter studies and can be offered by the WOFAPS to any center in need
Mitigating the Impact of COVID-19 on Children’s Surgery

Nabulindo Susane, Paediatric Anaesthesiologist, Nairobi, Kenya

How could GICS help with educational resources?

• Topics:
  • Updates on number of COVID-19 positive children globally and their severity of disease
  • Offering emergency surgery during community spread of COVID-19

• Format:
  • Webinars
  • YouTube videos to show some short procedures
Mitigating the Impact of COVID-19 on Children’s Surgery

Nabulindo Susane, Paediatric Anaesthesiologist, Nairobi, Kenya

How could GICS help with guidelines?

• Appropriate PPE for different COVID-19 status
• Classification of urgency of surgery for the backlog of cases
• Precautions during aerosol-generating procedures
• Peri-operative management of COVID-19 positive children
Mitigating the Impact of COVID-19 on Children’s Surgery

Nabulindo Susane, Paediatric Anaesthesiologist, Nairobi, Kenya

How could GICS help with backlog of patients?

• Sharing of information via webinars/emails as it evolves
• PPEs….. provision, strategies to minimize misuse and optimal reuse
• Putting together surgical teams to travel to different regions to offer surgery for backlog at surgical camps
• Fundraising to support above initiatives
Mitigating the Impact of COVID-19 on Children’s Surgery

Nabulindo Susane, Paediatric Anaesthesiologist, Nairobi, Kenya

How could GICS help with research?

• Global paediatric surgery backlog during the pandemic and the implications on morbidity and mortality
• Outcomes of COVID-19 positive children undergoing surgery
Mitigating the Impact of COVID-19 on Children’s Surgery

Fabio Botelho, Paediatric General Surgeon, Brazil
How could GICS with education?

- Material geared toward junior residents, fellows, general surgery residents, and pediatricians, rather than senior surgeons
- Website resources
- Webinars
- YouTube videos for surgical techniques
- Translation of fundamental material into other languages (e.g., Spanish, Arabic, Mandarin, Russian, Hindi, French, Portuguese)
Mitigating the Impact of COVID-19 on Children’s Surgery

Fabio Botelho, Paediatric General Surgeon, Brazil
How could GICS help with guidelines?

• How to protect against COVID-19 with low resources?
  • No Negative Pressure ORs
  • PPE shortages

• Which operations should return first after lockdown?
Mitigating the Impact of COVID-19 on Children’s Surgery

Fabio Botelho, Paediatric General Surgeon, Brazil

How could GICS help with backlog of patients?

• Share content with other countries and associations
  • For example, Brazilian Ped Surgery Association has launched specific guidelines for tracheostomy and for management of surgical patients during COVID-19
  • These guidelines are in Portuguese and could help other Portuguese-speaking countries

• Promote an international survey to determine which surgeries are considered a priority by children’s surgical providers around the world
  • We would then have a global list of surgical priorities
  • Would need to consider geographical differences

• GICS could encourage and support observerships or short fellowships for pediatric surgery fellows from LMICs at HIC institutions
  • As we believe that lot of our fellows had their training impaired, it would be important to promote education of the future Ped Surgeons.
Estimate the burden of children’s surgical diseases after COVID
  
  - It would help to determine which diseases should be prioritized

We have the list of patients waiting for surgery

We are using appendectomies as a bellwether procedure to determine the impact of COVID-19 in urgent conditions
  
  - This would be important to prepare better the families in case of another pandemic

We could create a REDCap multicenter survey to estimate the waiting list of children’s surgical patients around the world
It would be important to monitor the patients who have undergone surgical procedures, as well as the surgical team. We could know if COVID-19 transmission has increased in the institutions where the elective procedures have returned.

The American Pediatric Surgical Association has launched a public Google sheet where pediatric surgeons across the USA can enter this type of data. GICS could do the same.

How could GICS help with research?
DISCUSSION:

How could GICS help with the following?

• Educational resources
• Guidelines
• Backlog of patients
• Research
Mitigating the Impact of COVID-19 on Children’s Surgery

Discussion: How could GICS help?

Kenneth Wong
Hong Kong

Leecarlo Millano
Indonesia

Beda Espineda
The Philippines

Lubna Samad
Pakistan

Vrisha Madhuri
India

Sameh Shehata
Egypt

Susane Nabulindo
Kenya

Fabio Botelho
Brazil
Mitigating the Impact of COVID-19 on Children’s Surgery

Kokila Lakhoo, Paediatric General Surgeon, UK, GICS Chair
Emmanuel Ameh, Paediatric General Surgeon, Nigeria, GICS Chair-Elect

GOING FORWARD:

- Further discussions, summary of needs from this session
- Review of proposed interventions
- Development of plans for action
- High-level advocacy
- Harmony of strategies with other groups
Action Planning Forum: Mitigating the Impact of COVID-19 on Children’s Surgery

Thank you to all of our speakers and to Lifebox for helping us host this event

For questions: GICSurgery@gmail.com

COVID-19 resources on our website: www.GICSurgery.org