## DIVISION OF ACUTE CARE SURGERY

### Department of Surgery COVID-19 Activation and Response Plan

<table>
<thead>
<tr>
<th>Activation</th>
<th>Threshold for activation/Possible ACS Impact</th>
<th>Surgery Department Response</th>
<th>Recommended Facility Response</th>
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</thead>
<tbody>
<tr>
<td><strong>ACS Level: Alert</strong></td>
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<tr>
<td><strong>Atrium Incident Command Priority 1</strong></td>
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<tr>
<td></td>
<td>• Pandemic level, increasing prevalence throughout the country</td>
<td>• Contact patients prior to visits to clinic and/or OR to delay surgery if elective and have COVID-19 high risk features</td>
<td>• Focus on avoiding patient presentation to hospital for testing</td>
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<tr>
<td></td>
<td>• Potential impact to facility and system</td>
<td>• Have clinic nurses screen patient for must see and urgent visits to present to clinic, all other managed with calls or telehealth evaluation</td>
<td>• Minimize routine, non-urgent clinic appointments</td>
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<td></td>
<td>• Full Surgery Compliment</td>
<td>• Stay home if sick</td>
<td>• Focus on virtual visits</td>
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<td></td>
<td>• Peri-operative staffing normal</td>
<td>• All personnel in QI, Research, etc without direct patient care to start working from home</td>
<td>• Restriction of visitors to immediate families</td>
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<td></td>
<td>• School closing in community with impact on staff availability</td>
<td>• Prioritize cases for CV, cancer, urgent and emergent status</td>
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<tr>
<td><strong>Department</strong></td>
<td></td>
<td>• Begin cycling faculty/APP/residents on 5-7 day cycles to minimize exposure</td>
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<tr>
<td><strong>ACS:</strong></td>
<td></td>
<td>• APP with no change in role</td>
<td><strong>Transfer Criteria</strong></td>
</tr>
<tr>
<td></td>
<td>• Maintain current staffing model</td>
<td>• Non-essential surgery can continue</td>
<td>• Limit non-emergent transfer to CMC Main</td>
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<tr>
<td></td>
<td>• May need switching to maintain core service lines as faculty become infected and require quarantine</td>
<td></td>
<td><strong>Operating Rooms</strong></td>
</tr>
<tr>
<td></td>
<td>• ACS obtain faculty privileging at all Atrium Metro Facilities and VCC ability</td>
<td></td>
<td>• Normal Operations</td>
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<td></td>
<td><strong>NORA</strong></td>
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<tr>
<td></td>
<td></td>
<td>• Limiting to emergent cases only when COVID-19 positive or expected</td>
<td>• All procedures done at patient bedside or in OR when at all possible</td>
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<td></td>
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<td></td>
<td>• Cases that must be done in procedure areas: pediatric septoplasty, pediatric pacemaker, PDA stent, Cerebral angiography, Code Stroke, Pediatric CT and Code Stemi</td>
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<td></td>
<td>Services: EGS, STICU Low, STICU High, Trauma Floor, Day Call, Night Call</td>
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</table>
### ACS Level 2

**Atrium Incident Command Priority 1**

- First confirmed case inpatient case
- Potential impact on facility and system
- <20% hospital bed availability
- <25% ICU bed availability
- <3 ACS faculty out
- Reduction in PeriOp staff by 10% due to illness
- Decreased blood bank supply due to social distancing

**Dept:**

- **Goal Reduce elective case volume by 50% with non-essential cases cancelled for at least 2 weeks (focus on required cancer and CV cases)**
- Non-essential cases to not reschedule for 3 months
- Sub-acute cases (need in <3months) able to proceed
- High risk patients (age >60, DM, HTN, smoking hx, COPD CHF, CAD) discuss with patient and cancel if can wait
- Pooling of non-ACS surgeons for system general surgery coverage
- **Reallocation of elective rotation surgical residents**, research residents, to EGS, ICU, and trauma rotations as drawdown on elective cases proceed
- Non-ACS APP to flex to ACS or medical service lines
- All CC credentialed APP to flex to ICU services

**ACS:**

- Maintain current weekday staffing model
- Cohort EGS service to cover just ICU EGS/ED patients

**Facility**

- Daily SITREP huddles with COVID-19 Taskforce leaders
- Subsequent daily sitrep with ACS stakeholders and providers
- Nursing reassignments, expanded patient ratio
- Expanded Patient cohorting
- Start aggressive discharge of all non-critical patients to ANY discharge destination.
- Delayed Tracheostomy protocol in effect for COVID patients,
- Trach/ENT case COVID screening
- Triage criteria initiated for ECMO cannulation. Institute virtual clinic visits for all ACS clinics unless urgent problem.
- Limit visitation to 1 per patient in ICU, none floor

**Transfers**

- Institution of SCC Quarterback with knowledge of sitrep, IC level, and resource availability for all surgical/SCC/trauma consults, vets all transfer requests after service
- Limit non-emergent transfer to main
- Urgent/Emergency cases with surgeon capability at outlying facility should be triaged to stay at that facility
- Emergent cases with critical care needs prioritized to CMC Main
- Only urgent/emergent trauma transfers will be accepted with needs for specialized care

**Operating Rooms**

- CMC and ODS - Per service line decrease number of elective cases by 50%- non-essential cancelled;
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<th>DIVISION OF ACUTE CARE SURGERY</th>
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<tr>
<td>• General surgery to cover floor EGS</td>
<td>prioritizing surgical urgency and canceling high risk patients</td>
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<td>• ACS Services: ICU EGS, STICU Low, STICU High, Trauma Floor, Day Call, Night Call</td>
<td>NORA</td>
</tr>
<tr>
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<td>• As per Alert status</td>
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# DIVISION OF ACUTE CARE SURGERY
## Department of Surgery COVID-19 Activation and Response Plan

### ACS Level 1

**Atrium Incident Command Priority 1**

- Facility at ≥100% capacity
- ICU capacity ≥90%
- 5-20 confirmed admitted cases
- Dwindling resources of facility
- Significant impact on the system
- Denial of discharges from SNF, rehab, or other discharge dispositions
- 3-6 ACS Faculty out
- Reduction in PeriOp staff by 25% due to illness
- Severely decreased blood bank supply

**Dept:**
- All non-essential surgery cancelled, consider cancelling invasive CV and cancer if high risk factors (age >60, DM, HTN, smoking hx, COPD CHF, CAD).
- Permission to perform any non-urgent (needed in less than 2 weeks) case requires Chairman/Chief approval.
- Temporize urgent cases using non-operative means and discharge patient’s home at increasing rates
- General surgery trained faculty are employed to consult and manage EGS Tier 1: General Surgery, HPB, Transplant, GI Onc, Bariatric, Colorectal, MIS, PGY5, Fellows Tier 2: All other General Surgery trained attendings
- General surgery pool cover Main and system EGS/general surgery needs
- All residents redistributed to ICU, EGS, trauma rotations
- All CC APP flex to cover surgical and non-surgical ICU covered by ACS faculty

**ACS:**
- SCC faculty taking non-surgical ICU admissions.
- ACS faculty responsible for STICU all patients and trauma
- Increase proportion of available surgical critical care intensivist to care for COVID-19 ICU teams
- Older faculty focused toward trauma population and virtual care

**Facility**
- Daily SITREP huddles with COVID-19 Taskforce leaders
- Subsequent daily sitrep with ACS stakeholders and providers
- ICU Expansion: Progressive care, monitored beds, PACU overflow
- Two ICU beds per ICU room
- Prepare Two hospital beds per hospital room
- No patient visitation

**Transfers**
- SCC with knowledge of sitrep, IC level, and resource availability for all surgical/SCC/trauma consults, vets all transfer requests after acceptance
- Urgent cases to stay at that facility and every effort to discharge them with non-operative means
- No non-emergent transfer to main
- Emergency cases with surgeon capability at outlying facility will stay at that facility
- Emergent cases with critical care needs prioritized to CMC Main or nearest available facility with an ICU and surgeon
- Exhaust non-operative interventions
- ECMO needs patients prioritized with consultation of ECMO team given scarce resources
- All trauma transfer requests must be vetted through and ACS staff, only emergent or needs for acute specialized care will be transferred
- Virtual and telephone management of urgent needs

**Operating Rooms**
- Reduce rooms running by 1/2
- Urgent and emergent surgical cases only
- CMC OR 20 rooms (1 Trauma, 1 Transplant, 4 General Surgery, 2 Ortho, 2 CT, 1 Cysto, 1 Hybrid, 1 Robotic, 1 GYN, 2 Peds, 2 Neuro, 1 Plastics, 1 ENT)
| due to social distancing | • ICU EGS transitioned to fellow, PGY-5, general surgery coverage  
• SCC fellow’s battlefield promotion to junior faculty for ICU and trauma coverage  
• ACS Services: STICU Low, STICU High, PACU ICU, Virtual Critical Care, 12 hour trauma call. | • ODS 5 rooms will be available appropriate cases to be moved from CMC  
NORA  
• As per Alert status |
# Atrium Health

## Division of Acute Care Surgery

### Department of Surgery COVID-19 Activation and Response Plan

<table>
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<th>ACS Condition Zero</th>
<th>ACS: All non-emergent (need in &lt;2 days) cases cancelled. Urgent cases transfer to outlying facilities. Pursue all non-operative options for emergent and urgent patients.</th>
<th>Facility: Daily SITREP huddles with COVID-19 Taskforce leaders Subsequent daily sitrep with ACS stakeholders and providers OR conversion to 4 ICU beds Anesthesia reassigned to critical care Physicians assigned to areas outside of expertise for patient care Tandem ventilator and/or novel ventilators from RT equipment Possible intubation with family manual ventilation (BVM) on case by case basis Need for increased cohorting of COVID+ providers in hospital still on duty Transfers: SCC Quarterback with knowledge of sitrep, IC level, and resource availability for all surgical/SCC/trauma consults, vets all transfer requests Urgent cases to stay at that facility and every effort to discharge them with non-operative Urgent and emergent cases at main to transfer to Mercy and other facilities to prioritize severely ill, severe trauma, critical care needs EGS and other surgical patients No non-emergent transfer to main Emergency cases with surgeon capability at outlying facility will stay at that facility Emergent cases with critical care needs with advanced triage criteria Exhaust non-operative interventions ECMO advanced triage criteria Trauma transfers with advanced triage criteria Virtual and telephone management of urgent needs</th>
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<td>Atrium Incident Command Priority 1</td>
<td>Import trauma experienced system surgeons for trauma call General surgeons to assist with trauma coverage, only Tier 1 to cover trauma if needed Tier 1: General Surgery, HPB, Transplant, GI Onc, Bariatric, Colorectal, MIS, PGYS, Fellows Tier 2: All other General Surgery trained attendings Tier 1 to cover Medical patients when needed All staff, residents, fellows, and APP possible need to flex to cover non-surgical patients Advancement of PGY 5 and Fellows to junior attending status. Creation of PGYS service for COVID/trauma/EGS, able to take trauma call in attending role with ACS faculty backup. Run floor, consults, and if needed ICU level of care. PGY-4 to take position as acting fellow for EGS, trauma, ICU, able to act independently for extension of attending run services for COVID-19 patients Battlefield promotion of all subspecialty fellows to junior attending status for running of own COVID-19 service Triage criteria for emergency operations and trauma patients. Triage criteria for mechanical ventilation. Futility policy for Code Blue Activation in COVID patients. Futility policy for trauma activations and admissions.</td>
<td>Dept: Facility at &gt;125% capacity ICU capacity ≥100% &gt;20 confirmed admitted cases Expected exponential increase in admissions Catastrophic Exhaustion of facility and system resources 6-9 ACS Faculty Out Reduction in staff by 40% due to illness ICU Bed Capacity over maxed Blood availability scarce</td>
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### ACS

#### Facility

- Facility at >125% capacity
- ICU capacity ≥100%
- >20 confirmed admitted cases
- Expected exponential increase in admissions
- Catastrophic Exhaustion of facility and system resources
- 6-9 ACS Faculty Out
- Reduction in staff by 40% due to illness
- ICU Bed Capacity over maxed
- Blood availability scarce

#### ACS: All non-emergent (need in <2 days) cases cancelled. Urgent cases transfer to outlying facilities. Pursue all non-operative options for emergent and urgent patients.

#### Facility: Daily SITREP huddles with COVID-19 Taskforce leaders Subsequent daily sitrep with ACS stakeholders and providers OR conversion to 4 ICU beds Anesthesia reassigned to critical care Physicians assigned to areas outside of expertise for patient care Tandem ventilator and/or novel ventilators from RT equipment Possible intubation with family manual ventilation (BVM) on case by case basis Need for increased cohorting of COVID+ providers in hospital still on duty

#### Transfers: SCC Quarterback with knowledge of sitrep, IC level, and resource availability for all surgical/SCC/trauma consults, vets all transfer requests Urgent cases to stay at that facility and every effort to discharge them with non-operative Urgent and emergent cases at main to transfer to Mercy and other facilities to prioritize severely ill, severe trauma, critical care needs EGS and other surgical patients No non-emergent transfer to main Emergency cases with surgeon capability at outlying facility will stay at that facility Emergent cases with critical care needs with advanced triage criteria Exhaust non-operative interventions ECMO advanced triage criteria Trauma transfers with advanced triage criteria Virtual and telephone management of urgent needs

#### Operating Room

### ACS Condition Zero

- Facility at >125% capacity
- ICU capacity ≥100%
- >20 confirmed admitted cases
- Expected exponential increase in admissions
- Catastrophic Exhaustion of facility and system resources

### Atrium Incident Command Priority 1

- All non-emergent (need in <2 days) cases cancelled. Urgent cases transfer to outlying facilities. Pursue all non-operative options for emergent and urgent patients.
- Import trauma experienced system surgeons for trauma call General surgeons to assist with trauma coverage, only Tier 1 to cover trauma if needed Tier 1: General Surgery, HPB, Transplant, GI Onc, Bariatric, Colorectal, MIS, PGYS, Fellows Tier 2: All other General Surgery trained attendings Tier 1 to cover Medical patients when needed All staff, residents, fellows, and APP possible need to flex to cover non-surgical patients Advancement of PGY 5 and Fellows to junior attending status. Creation of PGYS service for COVID/trauma/EGS, able to take trauma call in attending role with ACS faculty backup. Run floor, consults, and if needed ICU level of care. PGY-4 to take position as acting fellow for EGS, trauma, ICU, able to act independently for extension of attending run services for COVID-19 patients Battlefield promotion of all subspecialty fellows to junior attending status for running of own COVID-19 service Triage criteria for emergency operations and trauma patients. Triage criteria for mechanical ventilation. Futility policy for Code Blue Activation in COVID patients. Futility policy for trauma activations and admissions.
**DIVISION OF ACUTE CARE SURGERY**  
Department of Surgery COVID-19 Activation and Response Plan

| Remaining ACS faculty transition to focus on ICU solely |
| Complete ACS allocation toward ICU patients |
| (Trauma volume expected to decrease and transition to general surgery trained faculty) |
| Chief resident to take trauma floor |
| ACS Services: STICU Low, High, PACU ICU, 24-hour trauma call for ICU |

| Only Emergent (need in <2days) cases |
| NORA |
| As per Alert status |