



# Atrium Health

**2021**

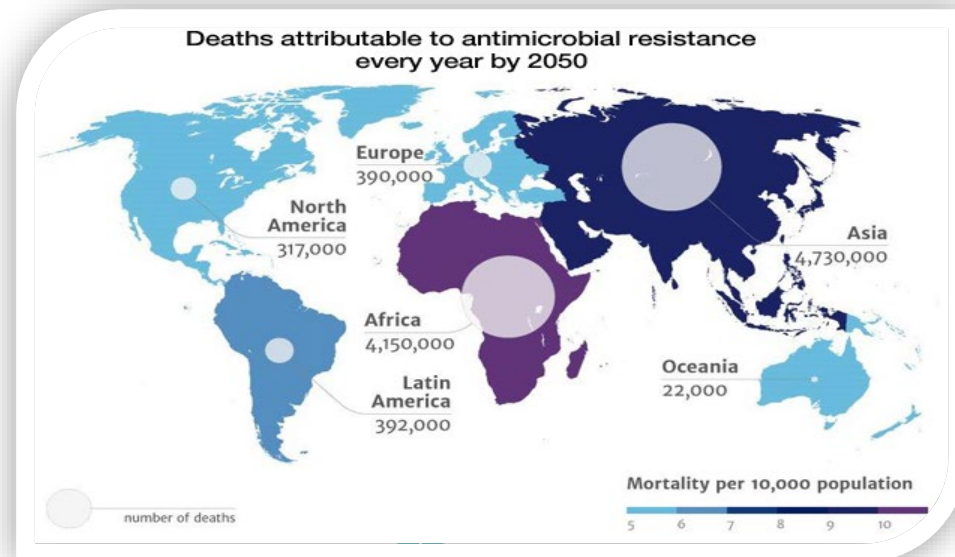
**Antimicrobial Stewardship Program  
Update**

# Objectives

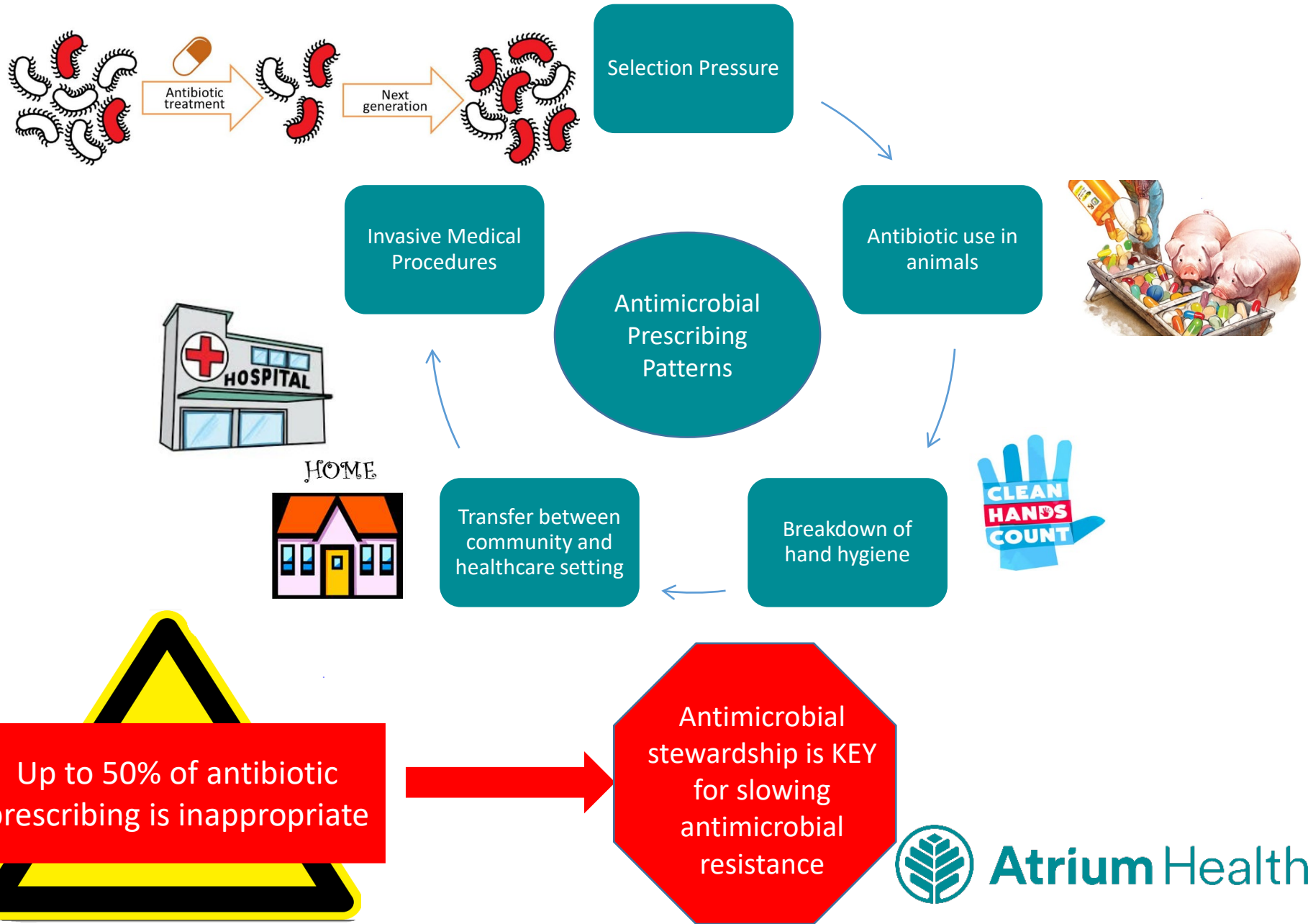
- Discuss consequences of inappropriate antimicrobial prescribing and overuse
- Define antimicrobial stewardship and describe initiatives to improve antibiotic prescribing practices at Atrium Health
- Apply principles of antimicrobial stewardship to patient care practice

# A Global Crisis: Antimicrobial Resistance

- ↑ antibiotic resistance is associated with ↑ morbidity, mortality, and ↑ in healthcare associated infections
  - *By 2050, multidrug resistant organisms (MDROs) will kill more patients than cancer*
- ↑ antibiotic use has contributed to ↑ resistance and other consequences
  - *30% of *C. difficile* infection now occurs in the community*
- Simultaneous ↓ in antimicrobial development
  - *Lack of new antibiotics to address resistance*
- Costly health care
  - *\$20 billion direct,*
  - *\$35 billion indirect,*
  - *8 million additional days*



# Antimicrobial Resistance: Contributing Factors



# What is Antimicrobial Stewardship?

*Coordinated interventions designed to improve and measure the appropriate use of antibiotic agents by promoting the selection of the optimal antibiotic drug regimen including dosing, duration of therapy, and route of administration*

## Goals

- Improve **individual patient outcomes** by:
  - Optimize treatment of infectious process
  - Minimize risk of complications of therapy
  - Reduce length of stay
- Improve **collective population outcomes**
  - Reduce antimicrobial selection pressure to slow antimicrobial resistance because inappropriate antibiotic use in one patient impacts effectiveness in other patients



# How can YOU help?

*You can impact antimicrobial resistance at every stage of antibiotic use.*

## Assessment

- Only prescribe antibiotics for bacterial infections; not viruses, colonization, or contamination
- When starting an antibiotic, use facility-specific empiric therapy guidelines
- Prescribe the narrowest spectrum antibiotic possible that avoids collateral damage
- Make every effort to obtain an accurate drug allergy history

## Antibiotic Order

- Administer the antibiotic in a timely manner
- Make sure cultures are ordered before giving antibiotics

## Outcomes

- Perform an antibiotic timeout at 48-72 hours: constantly assess the patient's need for antibiotics
- Narrow or discontinue antibiotics based on culture results as soon as possible
- Monitor the patient for side effects, especially diarrhea
- Only administer antibiotics for the shortest duration necessary



**Atrium Health**

# For Prescribers: 3 Simple Habits to Adopt

## 1. Document antibiotic indication

*Some antibiotics require an indication be specified at the time of order. Make every effort to choose an indication from the dropdown menu and avoid choosing “Other”.*

## 2. Specify antibiotic duration of therapy

## 3. Routinely perform an antibiotic “timeout” at 48-72 hours of therapy to assess appropriateness of therapy:

- ☐ The **Right syndrome** identified
- ☐ The **Right drug** selected
- ☐ Given at the **Right dose**
- ☐ Via the **Right route of administration**
- ☐ For the **Right duration of therapy**



# Avoid these Common Mistakes to Help Slow Antimicrobial Resistance

## Treating Asymptomatic Bacteriuria

Most patients with a positive urine culture but *no symptoms* do not need antibiotics  
Exceptions: pregnancy, urologic procedures

Urine cultures should NOT be ordered based on urine appearance or smell!

Treating viral respiratory infections with antibiotics

Resistance!

Adverse Effects!

## Not Making Wise Antibiotic Choices

### Avoid using agents that are too broad

- Reserve carbapenems!
  - Patients with or at risk for ESBL infection
  - Overuse can promote CRE!

### Avoid excessive fluoroquinolone use

- Often **not** recommended 1<sup>st</sup> line
- High rates of gram-negative resistance
- Strong association with *C. difficile*



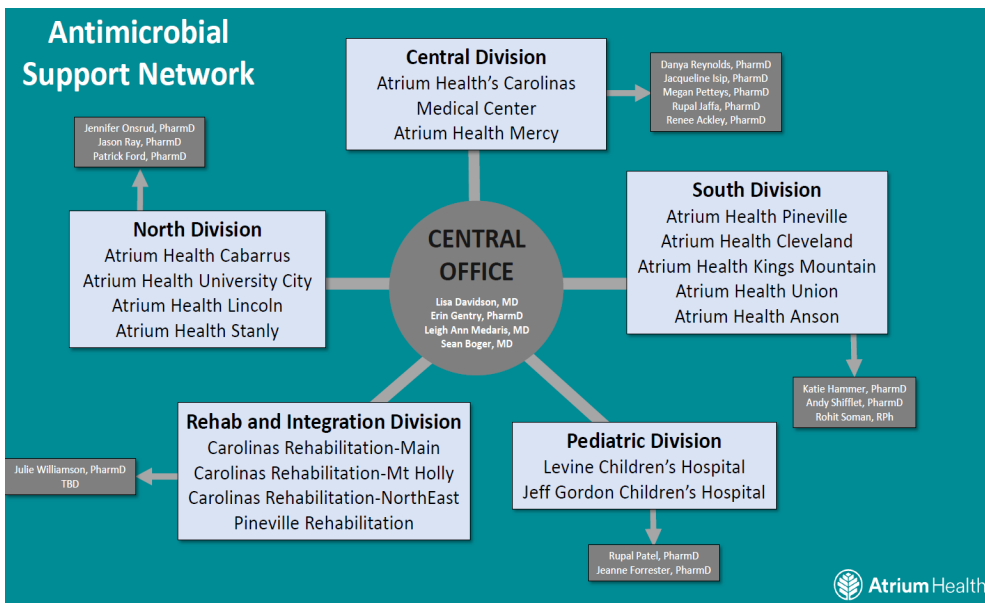
Atrium Health



# Stewardship at Primary Enterprise Facilities: Antimicrobial Support Network (ASN)

Each Atrium Health Division has dedicated ASN pharmacists that oversee antimicrobial stewardship in collaboration with ID physicians

- Pharmacists perform a daily review of patients who meet criteria such as:
  - Antimicrobial duration at least 72 hours
  - 3 or more antimicrobials prescribed
  - Restricted/targeted antimicrobial
- After discussion with an ID physician, the pharmacist may contact prescribers to assist with the optimal selection, dosage and duration of antimicrobial therapy
- Select high-risk antibiotics are restricted:
  - Ceftaroline, Ceftazidime/avibactam, Ceftolozane/tazobactam, Dalbavancin, Daptomycin, Delafloxacin, Eravacycline, Meropenem/vaborbactam, Minocycline, Oritavancin, Plazomicin, Polymyxin B, and Tigecycline
  - The pharmacy will dispense up to 24 hours of drug when ordered by a non-ID provider
  - Continuation requires ASN approval and/or ID consult



# Antimicrobial Stewardship Resources

- ASN Website: <https://physicianconnect.atriumhealth.org/Clinical-Reference/Infectious-Disease/Stewardship>
- Infectious Disease Guidelines: <https://physicianconnect.atriumhealth.org/clinical-reference/infectious-disease>
- Atrium Health Facility Antibigrams: <https://physicianconnect.atriumhealth.org/clinical-reference/infectious-disease/antibiograms>
- Patient Education Resources: <https://www.atriumhealth.org/germs>

## Antimicrobial Stewardship Program Contacts

- Dr. Lisa Davidson
- Erin Gentry
- Leigh Ann Medaris



# Atrium Health

2021

## Annual Physician Update

Emergency Management and Environment of Care

# Objectives

- Justification
  - It is an Accreditation (Joint Commission & DNV) requirement. These standards support other regulatory required programs (CMS, OSHA, EPA, DHSR, etc.)
- Expectations
  - To promote a safe, functional, and supportive environment within the organization so that quality and safety are preserved. Be familiar with identifying, minimizing, and reporting safety related risks.
  - To recognize, communicate and respond during emergencies. All physicians and teammates understand their emergency response roles to preserve life, mitigate incident impacts and protect property.

*We have a responsibility to keep ourselves, teammates, patients, and visitors safe while in our facilities.*

# Emergency Management

- Things to know:
  - How to recognize a potential or evolving emergency:
    - Facility, Security, Medical Alerts
  - Your facility's emergency number
  - Your Emergency Operations Plan

# Emergency Response Responsibilities

- Respond to an emergency
  - To treat patients during an emergency, disaster, or catastrophic event
- Treat patients within the physician's scope of practice with available resources and capabilities
- Provide patient care guidance to other teammates (nurses, CNAs, etc.)
- Hospital Command Center will establish incident objectives to coordinate everyone's response efforts
- Physicians may be required to observe volunteers (Licensed and Non-Licensed) and assess competency levels



# Emergency Response General

- Emergency Alerts
  - Incidents that interrupt operations or functions of a facility/department/service line or external disasters: i.e. Facility, Security and Medical Alert.
- Emergency Notification
  - Notification and information delivery is through an emergency alert system and/or overhead page(where applicable)
- Incident Command System (ICS)
  - An expandable management system that integrates the activities of various agencies or departments during an incident/disaster to manage and guide the response and recovery
- After Action Review
  - Conducted after any emergency event to evaluate and develop strategies to lessen the impact of future similar events

# Questions?

- For general questions: [EmergencyManagement@AtriumHealth.org](mailto:EmergencyManagement@AtriumHealth.org)
- Emergency Management Department Page on PeopleConnect/  
PhysicianConnect:  
[Emergency Management \(atriumhealth.org\)](https://atriumhealth.org/emergency-management)
- Your facility Emergency Manager: [Contact Us](#)
- Sign up for Mass Notification/Emergency Alerts: [Everbridge](#)



# Environment of Care

- 3 Major Components

1. The building or space including how it is arranged and special features that protect patients, visitors and staff.
2. Equipment used to support patient care or to safely operate the building space.
3. People, including those who work within the organization, patients, and anyone else who enters the environment, all whom have a role in identifying risks or safety concerns.

# Environment of Care

- Safety/Security

- If you observe any safety concerns (inside the facility or outside the facility), unsafe practices, spills, broken equipment or utilities concerns, notify CHS Support Center at **704-446-6161**. Immediate security concerns should be directed to CHS Security at **704-355-3333**.

- Medical Equipment

- Contact the CHS Support Center at **704-446-6161** for defective or broken medical equipment.

- Fire/Life Safety

- Use the following acronyms for **fire** safety: RACE and PASS

**Response:** **R**escue, **A**lert, **C**ontain, **E**xtinguish/**E**vacuate

**Fire Extinguishers:** **P**ull, **A**im, **S**queeze, **S**weep

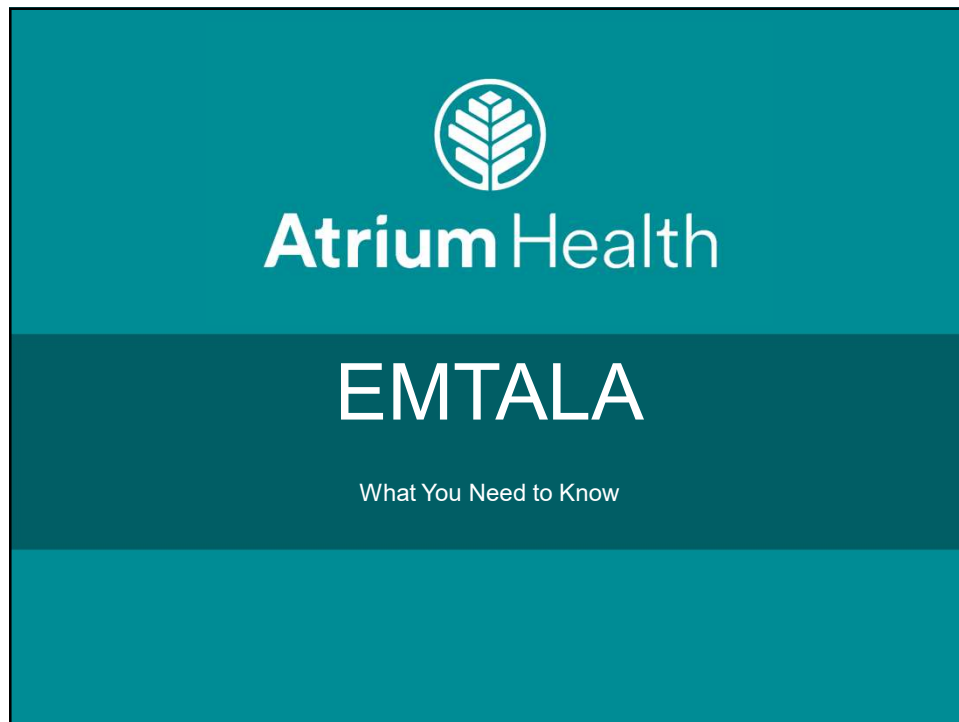
**\*\*\*Adhere to Interim Life Safety Measures at all times\*\*\***

# Environment of Care

- Hazardous Materials
  - Each department should have an inventory of chemical utilized per department. Ensure Proper PPE (personal protection equipment) is utilized, follow safety protocols for the safe handling of products, if spill occurs 1) isolate the spill, 2) remove individuals from the area, 3) initiate Facility Alert: Hazardous Material Release procedure, and consult the Safety Data Sheet on the homepage of PeopleConnect.
- Utilities
  - Contact the CHS Support Center at 704-446-6161 for utility failures.
- Safety Reporting
  - To report a teammate injury complete a ROII, to report a patient event complete a CARE Event. Both reports are located on PeopleConnect.

# Questions?

- Safety Hotline: **704-355-SAFE (7233)**
- Safety Department Page on PeopleConnect/ PhysicianConnect:  
<https://peopleconnect.carolinas.org/Departments/Safety>
- Or contact your Facility Safety Officer




1


## What is EMTALA?

**Emergency Medical Treatment and Labor Act**

- Original purpose was to prevent uninsured patients from being dumped on public hospitals
- Now includes transfer and on-call requirements



The illustration shows a stylized hospital building with a red cross on top, a white ambulance with a red light on its roof, and a red telephone handset. They are all set against a green background with a white road winding through it.

 Atrium Health

2

## Basic Law

Any person who comes to the emergency department must undergo a medical screening examination by a qualified medical professional to determine if they have an emergency medical condition, in which case, they must be stabilized or appropriately transferred to another facility.



3

## Who Has to Comply with EMTALA?

- Medicare hospitals with “dedicated emergency rooms”
  - Emergency Department
  - Hospitals with urgent cares on their campus
  - Facilities advertised as treating emergency conditions without an appointment
  - Facilities where 1/3 of the prior year’s patient base was emergency



4

## When Does EMTALA Stop Applying?

- Person is stabilized
- Person is admitted as an inpatient
  - Except when a woman is in active labor, in that case, EMTALA continues to apply regardless of inpatient status.
- Person is properly transferred



5

## Who is a “Person”?



6

## Any Person Means **ANY** Person

EMTALA applies regardless of a person's insurance status, race, nationality, etc.

Physicians cannot select out their own patients: any person who comes to the ED and triggers EMTALA must be treated the same



7

## ...But Not Every Person

EMTALA does not apply to:

- Inpatients, including inpatient transfers
  - Reminder: EMTALA continues to apply during active labor, regardless of inpatient status.
- Note that **patients on observation status**, even if they occupy a bed overnight, are not considered inpatients and **are still subject to EMTALA**.
- Outpatients who have begun their scheduled encounter in another department and then have an emergency.



8



## When Does A Person “Come to the Department”?



9

## Look Beyond the ED Walls for Emergency Medical Conditions

EMTALA applies when a person “requests” examination or treatment for an **emergency** medical condition **anywhere** on hospital property.

**Example:** If a person wanders into the radiology department with chest pain, EMTALA is triggered even though the person is not at the ED because he has an “emergency medical condition”.



10

## Close Enough to the ED

EMTALA extends to 250 yards around the main hospital campus buildings

**Example:** If a person collapses on the sidewalk outside of the ED, EMTALA is triggered



11

## A “Request” for Examination Can Be Implied

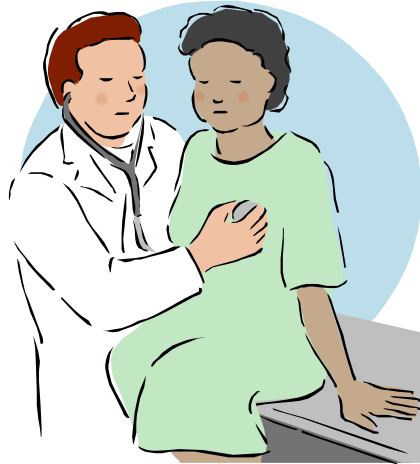
“Request”: A prudent layperson would believe that they need emergency medical treatment based on their appearance or behavior

**Example:** If a person comes to the ED asking for directions to the hardware store but is bleeding from a head wound, they are making a “request” under EMTALA.



12

## Medical Screening Examination



13

## What is a Medical Screening Examination? ("MSE")

**"MSE":** A medical evaluation to determine whether the person has an "emergency medical condition" ("EMC")

Scope of the MSE should be reasonably calculated to determine (with reasonable clinical confidence) if the person's condition constitutes an EMC



14

## The MSE

Examination should be appropriate based on the symptoms and signs of the patient

Use available necessary resources to determine if an EMC exists:

- Physical examination and medical history
- Available ancillary services, such as CT scans, lab tests, diagnostic evaluations
- Can require specialty consult
- Use other necessary available resources



15

## Money Is Not A Factor

- The scope of the MSE cannot be influenced by the person's ability to pay
- The MSE cannot be delayed to determine if the person has insurance coverage



16

## Who Can Do The MSE?

- Medical professionals who are deemed qualified to conduct MSEs by the hospital bylaws.
  - Physicians, or Advanced Practice Providers (APP's) such as Physician Assistants, Nurse Midwives and Nurse Practitioners
  - For OB patients, qualified RNs are allowed to assess the patient and share relevant information with a Physician or APP who is responsible for finalizing the MSE.



17

## What To Do When A Person Refuses The MSE

It is not an EMTALA violation if a person refuses the MSE if:

- Provider documents that he explained the examination and treatment, the risks and benefits they present, and that the person refused the MSE; and
- Reasonable attempts have been made to have the person sign a refusal of MSE (document attempt)



18

## Emergency Medical Condition



19

## Does The MSE Reveal An “Emergency Medical Condition”?

**Emergency Medical Conditions (“EMC”)** are medical conditions with such acute symptoms (including severe pain) that, if not given immediate medical attention, would likely:

- Place the person’s health in serious jeopardy;
- seriously impairs the person’s bodily functions;
- or
- cause serious dysfunction in the person’s bodily organs or parts.



20

## When Pregnancy Is An EMC

- The woman is having contractions and
  - There is not enough time to safely transfer her before delivery
- OR**
- Transferring the woman could pose a threat to the safety and health of the patient or her unborn child.



21

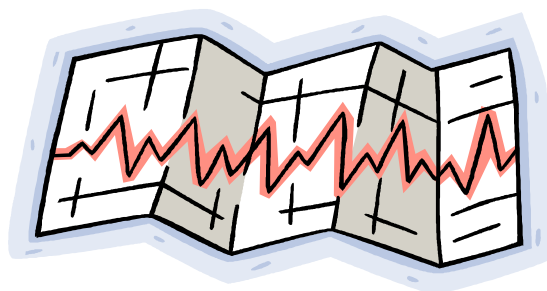
## When Mental Illness Is An EMC

- If the person is grossly psychotic or expresses suicidal or homicidal thoughts or gestures that would be dangerous to themselves or others, then they have an EMC.



22

## Stabilize the EMC



23

## If The MSE Reveals An EMC, Stabilize The Condition

Hospital must provide stabilizing treatment for an EMC within its capabilities and capacity.

- **Capability of the facility** means the physical space, equipment, supplies, and specialized services of the hospital.
- **Capability of the staff** means level of care personnel can provide based on their training and scope of professional license.
- **Capacity** means beds, staff and equipment, but also takes into account whether hospital customarily accommodates patients in excess of occupancy limits.



24



## When Is A Person Stable?

The person is “stable” when:

- The treating physician/other attending ED medical professional has determined (with reasonable clinical confidence) that the EMC has been resolved, or
- No material deterioration of the condition is likely to result from or occur during a transfer within a reasonable medical probability



25

## Transferring Unstable Patients To Other Facilities



26

## If EMC Cannot Be Stabilized, Person Can Be Appropriately Transferred

- If a person's EMC cannot be stabilized at this facility and all applicable resources have been exhausted to treat the EMC, the person must be transferred to a facility that has the capacity and capability to do so.



27

## Transfers Are Not Automatic

A valid transfer must be:

- "Appropriate"

**AND**

- To a facility with capacity and specialized capabilities or facilities that are needed to treat the EMC



28

## A Transfer Is Appropriate If ALL Of The Following Are True:

- The transferring hospital provides medical treatment within its capacity that minimizes the risk of transfer to the person/unborn child
- The receiving hospital agrees to accept the person, has space and qualified personnel available for treatment of the EMC



29

## A transfer is “appropriate” if ALL of the following are true:

Transferring hospital sends all medical records and relevant paperwork with the person (or as soon as possible after the transfer) including any lab results, as well as the Transfer Form

AND

Qualified personnel and transportation equipment are used for the transfer



30

## Prohibited Transfers Under EMTALA

- Transfer for FINANCIAL REASON IS NEVER APPROPRIATE
- Transfer for CONVENIENCE IS NEVER APPROPRIATE
- Transfer in PRIVATE VEHICLE PRIOR TO COMPLETION OF THE MSE IS NEVER APPROPRIATE

– If a patient demands to leave in a private vehicle against medical advice, this must be documented in detail.



31

## Before The Transfer Can Happen, You Need Documents

Person must “request” the transfer

- Person must be informed of the risks and the hospital’s obligations under EMTALA
- Request must be in writing, indicate reasons for request and person’s acknowledgement of risks/benefits of transfer

OR



32

## Certifications



Physician must sign certification that she believes (at that time) the benefits of treatment at another facility outweigh the risks of transfer to the person/unborn child.

OR

EMTALA requires that a Physician sign the transfer certification, unless there are no Physicians physically present in the ED. In that rare situation an APP may sign and have a Physician promptly countersign thereafter.



33

## Certification Content

- Includes a summary of risks and benefits of the transfer based on the person's condition
- Lists reasons for the transfer
- Is specific to the person being transferred (not a generic form)
- Must be close in time to the transfer

**CANNOT BE BACKDATED**



34

## When a Person Refuses Transfer

Not an EMTALA violation if a person refuses a transfer or leaves against medical advice if:

- Documented a description of the proposed transfer; **AND**
- Documented explanation that the provider explained the risks/benefits of transfer and description of why person refused the transfer; **AND**
- Documented reasonable attempts made to get person to sign off on refusal of MSE.



35

## A Note About Off-Campus EDs

- A facility must use all available resources within its license for the MSE before transferring a patient to separately licensed facility.
- Example: Steele Creek ED is licensed as part of Atrium Health Pineville and therefore must use all available resources at Atrium Health Pineville before it can transfer to CMC (unless it is known Atrium Health Pineville does not have any such resources). Same is true for CMC-Randolph – because it is licensed as part of CMC it must exhaust the resources at CMC before it can transfer to another licensed facility.
- It is also not an “EMTALA transfer” to send a patient from a free-standing ED to its main hospital because the care is still within the same license; it’s just a very long “hallway” of the hospital. Accordingly an EMTALA Transfer Form is not required for movement between two locations on the same hospital license.



36

## The Facility Receiving The Transfer



37

## The Receiving Hospital

- If receiving hospital has the capacity and specialized capabilities to treat the EMC, then it must accept appropriate transfers.
- A receiving hospital cannot refuse a transfer even if they believe the transfer is unsafe. The receiving hospital should strongly recommend a safe transfer, but cannot refuse such a transfer.
- “Capacity” includes available beds on a specialized unit, personnel on duty or unused equipment, but it also means more: if the receiving hospital has “rearranged” resources to accommodate more patients before, it has capacity to accept the transfer.



38

## What are “specialized capabilities”?

- “Specialized capabilities” are resources or services available at the receiving facility that the transferring facility does not have.
  - Does not necessarily require a bed on a specific unit, but rather the professional skills to provide the needed type of care
  - **Examples:** burn units, trauma units, neonatal intensive care units, regional referral centers (for rural areas)



39

## Hindsight is 20/20



- Capacity and capability are evaluated during an investigation of an alleged EMTALA violation
- The receiving facility may not have information that affects the appropriateness of the transfer. It is better to take a transfer that is borderline than to refuse it.
  - A transferring hospital cannot transfer if it had capacity



40



## Reporting Obligations

Hospitals are required to report every suspected improper transfer within 72 hours of it happening.

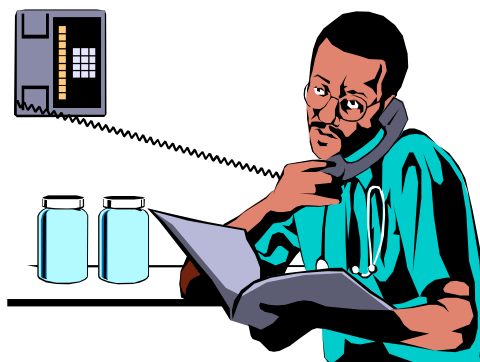


Incentive to report: Failure to report suspected improper transfers could result in the receiving hospital being terminated from Medicare.



41

## On-Call Duties



42



## On-Call Requirements

- Hospitals must maintain a list of on-call physicians
- The list must best meet the needs of the hospital's patient base given the hospital's resources.
  - Includes specialists and subspecialists
  - A physician, not a physician group, is on call



43

## Out of Sight, But Not Out of Mind

An on-call physician must respond in a reasonable amount of time.

- Must at least call in
- Emergency Physician determines if the on-call physician must physically come in
- In certain situations, it may be appropriate to send in a mid-level provider if allowed by bylaws and if the condition warrants



44

## Prohibited On-Call Practices



An on-call physician cannot:

- Refuse to see someone that has been terminated from their private practice
- Wait until regular office hours to see the person
- See only people from that physician's practice or only insured patients

If a person has to be transferred because physician failed to take call or another physician had to be called in, the on-call physician may be subject to penalties under law.



45

**Take the time to document.  
It's worth it.**



46

## Documentation Is The Evidence In An EMTALA Investigation

EMTALA Surveyors will review documentation, not rely on recollections.

- Survey can occur long after the incident
- Avoid using abbreviations that could be misconstrued
- Documentation should be complete and thorough



47

## Penalties



48

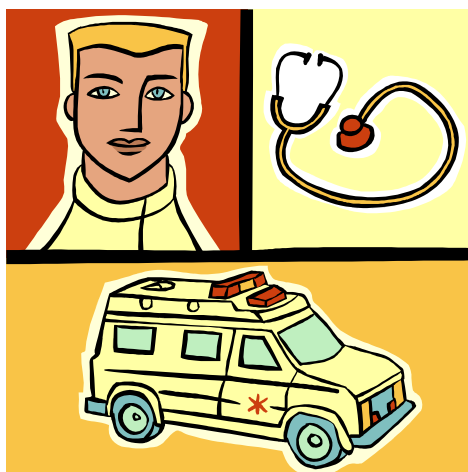
## Penalties

- \$104,826 fine for hospitals with 100+ beds per violation
- \$104,826 fine for physician who examines, treats or transfers a patient in violation of EMTALA
  - This is NOT covered by malpractice insurance
- Possible termination from participation in Medicare
  - Worth millions of dollars of revenue
  - Bad publicity



49

## EMTALA Scenarios



50

## Psychiatric Patient Scenario

Law enforcement presents at ED with person in custody and requests psychological evaluation. Hospital psychiatric beds are full and nurse tells them there is no capacity so they go to another facility.

**EMTALA violation?**



51

## YES

The patient “came to the ED” and “requested” an evaluation, so a MSE should have been done. If the police decided to leave voluntarily without the MSE, it should be documented they did so.



52

## On-Call Physician Scenario

A specialty physician is on call but refuses to answer the page and come in. The hospital finds another physician in the same specialty to examine the patient within the time limit.

**EMTALA violation?**



53

## YES and NO

If no other requirements were violated, the hospital has not violated EMTALA because it was able to provide the MSE. The physician who refused to answer the call, however, has most likely violated EMTALA.



54

## Asthma Scenario

A teenager comes to the ED complaining of chest tightness, wheezing and shortness of breath and has a history of asthma. Physician does the MSE and determines it is an asthma attack and is an EMC. He gives her medication and oxygen to stabilize her. He then discharges her home.

**EMTALA violation?**



55

## NO

The physician properly conducted the MSE and administered stabilizing treatment. The physician is not required to cure the underlying condition of chronic asthma before he can release her; he must just stabilize the attack. EMTALA no longer applied once the patient was stabilized.



56



## Medication Scenario

A woman presents to the ED suffering from a very high fever, nausea, and seizures. The on-call physician has determined that she should be transferred. To control her seizures, he gives her some medication and then immediately puts her in the ambulance.

**EMTALA violation?**



57

## PERHAPS

Physician should have waited a reasonable amount of time to see if the medication had a negative effect on the patient. He may have failed to provide stabilizing treatment within the capabilities of the facility prior to the transfer.



58

# Questions?





# Atrium Health

## Privacy and Security: It's Worth Your Time

Annual Medical Staff Education

FOR INTERNAL MEDICAL STAFF USE ONLY

# Your Time Is Valuable. . . So Are Your Patients

You work hard to give your patients better **health**.  
Help them **heal** by protecting their privacy.

- By caring about your patients' privacy, you can:
  - Avoid causing them stress about whether their own information is lost because you gave them the wrong discharge paperwork
  - Protect their safety by giving them the right prescription or care instructions
  - Advance their health by entering information into the **right** record (beware of “copy paste”!)
  - Spend time taking care of them instead of dealing with privacy and security issues
  - Support a positive patient experience by making them feel like you always protect their information



# Protect Your Patients' Privacy and Safety

- Giving out the wrong prescription or entering information into the wrong record is more than a privacy issue – it is a **patient safety issue!**
- Take 3 seconds to confirm you have the right patient (name and DOB), especially when:
  - You've printed discharge instructions and prescriptions
  - You're in multiple charts
  - Things are busy
  - Someone else is handing you information



Do not assume the person before you has checked that the information is for the right patient!



# Know Who's In the Communication Circle

Patients may have friends and family **visit** them, but they may not want them to **know** about their care or diagnoses.

- Never assume anything! **BEFORE** you start sharing information:
  - Ask the patient who they want included in the conversation
    - Ideally, wait until everyone else has stepped outside so the patient doesn't feel pressured.
  - If the patient lacks capacity, you may decide it is in the patient's best interest to share information with the family/friends, but only share what is necessary

If the patient has a sensitive diagnosis (HIV, STD, mental health, etc.), assume **no one in the family knows** and talk to the patient alone if possible



Check with the nurses' station before entering a patient's room to see if an objection exists. The patient may have changed their mind about who they want involved in their care and you may not be aware of the change.

# Medicine on the Move – Beware of Incidental Disclosures

- Talking about patients in public areas affects more than privacy – it affects patient confidence and causes them concern
- Do not talk about the specifics of a patient when others are around or where you can be overheard
  - Be as vague as possible
  - Do not include the patient's name, unique surgery, sensitive conditions, or relation to someone else or position (e.g., “the mayor”, “Bob Smith's wife”, or “the head of purchasing”)
- Be especially aware of what you are saying when you are in line at the coffee shop, at the cafeteria, in the elevator, near a patient waiting room, in front of open treatment rooms, and in hallways



# Good Intentions Can Have Bad Outcomes

Providers can be put in the middle when family/friends complain about the care they receive or want you to interpret what is going on.

- Do not get involved in a patient's situation if you are not directly involved in their care, regardless of your good intentions.
  - Refer patient complaints to the Customer Care Line, Patient Experience, Administrator on Call, or Medical Staff Services.
  - If the patient wants you to be involved in their case, s/he must tell the attending first and the attending can share with you what s/he deems appropriate for the scope of your involvement. Do not access the EMR – let the attending do that.



**Remember:** You are only authorized to use the EMR to take care of YOUR patients. Do not use it for personal reasons. There are serious consequences for inappropriately access patient information, including loss of access rights and medical staff disciplinary action.



# Save Yourself the Headache – Leave It at the Office

- Think twice before taking documents and patient information off-site
  - If you lose it or it's stolen, we may have to notify your patients, the government, and the media
- If you must take information off-site, remember:
  - Only take what you *really* need – bring it back when you are finished
  - Log in remotely and view information through secured channels whenever possible
  - Never leave information, devices, or briefcases with patient information visible in your car or unattended
  - Ask yourself if that information were money, would you leave it lying around?



If devices or information is lost or stolen, notify the Atrium Health Service Center **immediately!** They are available 24/7 at **704-446-6161**.

# A Quick Click Could Be Disastrous

- Protect Our Systems and Information
  - **Never** click on any links or open attachments in emails you weren't expecting.
    - Look for the "Warning Banner" at the top of the email
  - If you think you clicked on a malicious link or attachment, call the Atrium Health Service Center at 704-446-6161 **immediately**.
  - If you receive a suspicious email, click the **Squish the Phish** button
    - Cybersecurity will check the email to determine if it's malicious
    - Malicious emails will be removed from your inbox **and** from the inbox of any other user who may have also received it!



- Protect Your Workstation and Your License
  - Do not leave computers up when you walk away, even in a patient's room – someone will come up and see it. Worse, they might start entering information under your login and *you* will be held responsible.
  - Log off the computer or press Windows and **L** to lock the computer (or Ctrl-Alt-Delete)
  - **NEVER GIVE OUT YOUR PASSWORD TO ANYONE!**

# Kick the Clutter!

Use phone calls or Teams messages to communicate instead of email

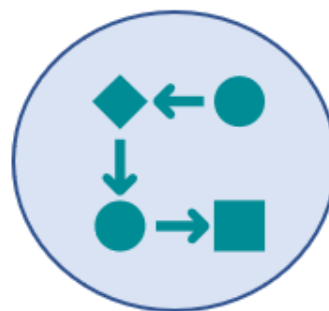
**Control Your Message, Control Your Risk.** In addition to the risk of hackers, email messages cause many other problems:



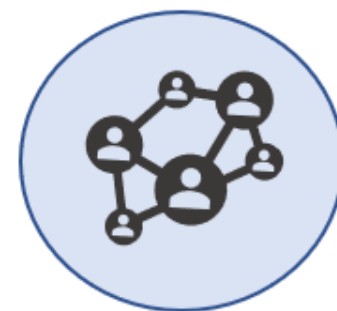
Others can forward your email without your permission, sharing information with recipients that you didn't intend.



Your written words may resurface in the wrong place, like with your boss or in the headlines.



Emails can get altered or taken out of context, changing the meaning of the information.



Sharing email can lead to the over-disclosure of PHI to people who don't need to see it.



Visit the [Protect Our Patients Site](#)



# PRIVACY AND SECURITY SAFEGUARDS

## DISPOSAL OF PHI

Put materials containing patient information (paperwork, labels, armbands, etc.) in a **locked** shred bin.



## REPORT PRIVACY INCIDENTS

Visit [Concern and Incident Reporting](#) on PeopleConnect or call Privacy at 704-446-5600.



## PROTECT YOUR PAPERS

Turn papers over or keep them in a folder when not in use. At the end of your shift (or when you're finished using them), put them in a secure, locked location. Always make sure you have the right papers before faxing, mailing, or handing out.



## KEEP IT QUIET

If you must discuss confidential information (including patient information), keep your voice down and pay attention to who is nearby. Don't discuss patients in public areas (hallways, elevators, etc.) where visitors, teammates, and other patients can easily overhear.



## WORKSTATION SECURITY

Lock your computer when you walk away, even if you're only gone for a minute! Patients, visitors, and even other teammates may see (or worse, **USE**) the info on your screen.



## SQUISH THE PHISH

When an email seems phishy, don't just delete it – press the **Squish the Phish** button! This alerts Security to check *all* mailboxes for the email and remove it before another teammate takes the bait. For Security concerns, call 704-446-6161.



# Atrium Health

## Privacy and Security: It's Worth Your Time

Annual Medical Staff Education



# Atrium Health

## Infection Prevention

2021 Physician Orientation

# Healthcare Associated Infections (HAIs)

- Over 2 million HAIs each year in U.S.
- 90,000 deaths
- 30-50% preventable
- Physicians are leaders and role models to influence team to follow best practices for preventing infections



# Publicly Reported North Carolina Healthcare Associated Infection (HAI) Data

North Carolina quarterly HAI reports (Provider Version and Consumer Version) for all hospitals in North Carolina available at <http://epi.publichealth.nc.gov/cd/hai/figures.html>

- Central Line Associated Bloodstream Infection (CLABSI)
- Catheter Associate Urinary Tract Infection (CAUTI)
- Surgical Site Infection (SSI-colon and abdominal hysterectomy)
- Lab ID Hospital Onset Clostridium difficile
- Lab ID MRSA Bacteremia





# Hand Hygiene - Why?



**The single most important thing we can do to keep our patients, ourselves, and our teammates safe!**

Practicing hand hygiene, which includes use of alcohol-based hand rub or hand washing, is a simple yet effective way to prevent the spread of pathogens and infections in healthcare settings

- The primary mode of transmission of multi-drug resistant organisms is on the hands of healthcare workers
- Sustained improvements in hand hygiene have been shown in a number of studies to reduce rates of healthcare associated infections.
- Hand hygiene rates above 80-90% have been associated with a 48% reduction in MRSA.

[MDRO literature-review.pdf \(who.int\)](#)



**Atrium Health**

# When to perform hand hygiene



Entering a patient's room or environment



Exiting a patient's room or environment (soap and water for Contact Enteric)



Before donning and after removing gloves



Before handling of an invasive device (PIV, Central line, urinary catheter, etc.)



After contact with body fluids or excretions, mucous membranes, non-intact skin, and wound dressings (soap and water if hands are visibly soiled)



After contact with a contaminated body site before moving to a clean body site during patient care



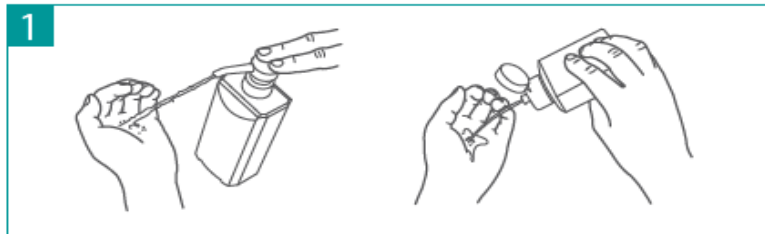
**Atrium Health**

# How to perform hand hygiene

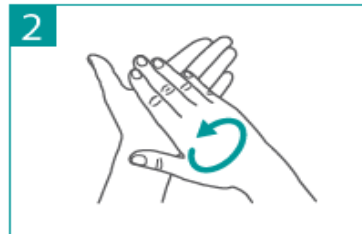
## Alcohol Based Hand Rub



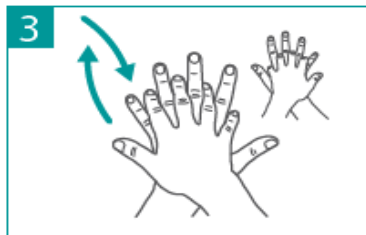
**Time:** Rub hands together until alcohol dries.



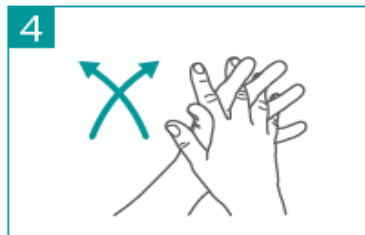
Apply enough hand sanitizer to cover all surfaces of the hands. This volume is different for everyone.



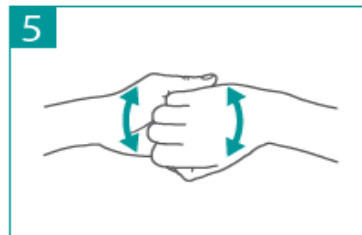
Rub hands palm to palm.



Rub the back of the left hand with the front of the right hand; then switch.



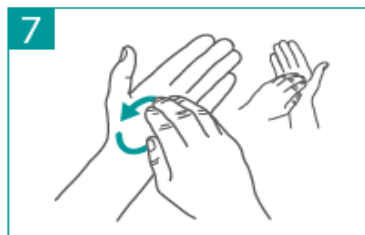
Rub hands palm to palm with fingers interlaced.



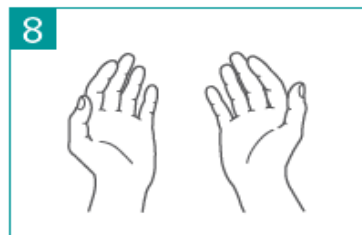
Clean the backs of the fingers by locking fingers into opposite palms.



Rub the left thumb clasped in right palm; then switch.



Rub your fingernails into the palms of your hands in circles.



Once dry, your hands are safe.

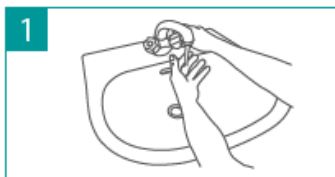


**Atrium Health**

# How to perform hand hygiene

## Soap and Water

 **Time:** Vigorously rub hands together for a minimum of 15 seconds



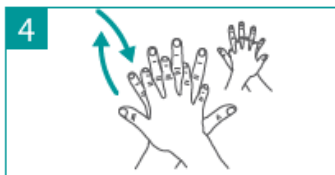
Wet hands with water.



Apply enough soap to cover all hand surfaces.



Rub hands palm to palm.



Rub the back of the left hand with the front of the right hand; then switch.



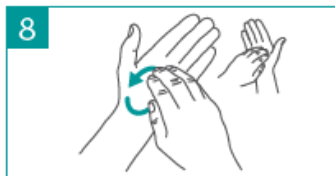
Rub hands palm to palm with fingers interlaced.



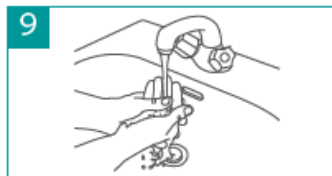
Clean the backs of the fingers by locking fingers into opposite palms.



Rub the left thumb clasped in right palm; then switch.



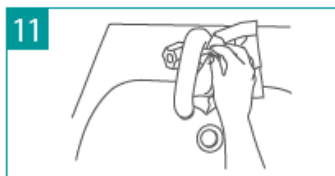
Rub your fingernails into the palms of your hands in circles.



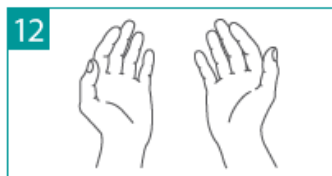
Rinse hands with water.



Dry hands thoroughly with a paper towel.



Use a dry paper towel to turn off faucet.



Your hands are now safe.



**At least 15 sec**



**Atrium Health**

# Soap and Water Hand Hygiene Indications

- Hands visibly soiled
- Before eating
- After toileting
- After visiting **Contact Enteric** precautions patient (C. difficile, norovirus)
- In most other situations, alcohol hand rub is as, or more, effective



# Hand Hygiene



- Use **hospital approved lotions** to reduce hand dermatitis from products (other lotions may inactivate hand hygiene agents)
  - Contact Teammate Health if reactions to hand hygiene agents occur
- **No artificial nails** because they harbor microorganisms (have been associated with outbreaks)
- Keep nails less than ¼ inch to avoid harboring of microorganisms

# Speak up for Hand Hygiene

## Provider Role:

Speak up when you see hand hygiene not being performed

**Know that leaders and other teammates will be approaching** and reminding each other about hand hygiene

Stay positive/professional when approaching and when being approached

If you are approached or if you hear, “Can I give you a hand?” – just clean your hands, say “Thank you”, and move on your way

Understand that speaking up is about patient & teammate safety – it’s not about finger-pointing, it’s about learning (real-time feedback)

# Teammate Expectations COVID Safe Behaviors

## What is COVID-Safe?

COVID-safe is a set of care standards intended to protect patients, visitors and medical staff and is based on these principles:

- Ensure patients get safe medical care
- Social distancing
- Follow Infection Prevention guidelines for hand hygiene and environmental cleaning
- Minimize mixing of sick and healthy people
- Use Personal Protective Equipment (PPE) the proper way

Stay home if you are sick and report your symptoms promptly to Teammate/Employee Health and your leader

COVID-safe behaviors apply to clinical and non-clinical areas





# Self Screen for COVID 19 Symptoms

- Fevers and/or chills
- Sore throat
- New or worsening cough or shortness of breath
- New runny nose/congestion or sinus pressure for more than 24 hours
- GI symptoms
  - Nausea, Vomiting, Diarrhea
- Headache-unexplained
- Muscle aches
- Fatigue
- Recent loss of taste and/or smell
- If you have any of the above, you should NOT report to work



# Atrium Health

Organisms/Diseases of  
Interest

# COVID-19, Delta Variant

Is 2-3 times more transmissible than earlier variants of SARS-COV2

Contains higher viral loads

Associated with more hospitalizations and deaths than earlier variants

Has rapidly become the dominant strain in NC

While COVID occurs more frequently in unvaccinated individuals, infections can occur in those who have been vaccinated



**Atrium Health**

# COVID-19

- Implement **Special Droplet Contact Precautions** in patients with symptoms of COVID, regardless of testing
- Asymptomatic patients who get tested for COVID should not be placed in isolation (i.e., testing pre-procedural, or for SNF placement, etc.)
- Covid-10 flag will be automatically placed in the EMR for patients with positive test results.
- Criteria for discontinuing precautions:
  - Canopy will automatically remove flag >21 days after first positive test, provided no fever > 100.4 in the previous 72 hours
  - For inpatients that are automatically cleared in Canopy, isolation precautions will need to be manually discontinued, when appropriate, based on clinical evaluation of symptoms

# Interpreting COVID PCR test results

- Atrium Health has different platforms for COVID PCR testing
- SARS-CoV-2, Luminex

Laboratory	
Molecular Pathology	Covid-19 SARS-CoV-2
7/11/2020 20:20 EDT	Not detected



Negative

Laboratory	
Molecular Pathology	Covid-19 SARS-CoV-2
7/11/2020 21:00 EDT	(A) Detected



Positive

- SARS-CoV-2, Roche

Laboratory		
Molecular Pathology	COVID-19 ORF1	COVID-19 E-gene
7/12/2020 20:28 EDT	Negative	Negative



Negative

Laboratory		
Molecular Pathology	COVID-19 ORF1	COVID-19 E-gene
7/1/2020 6:59 EDT	(A) Positive	(A) Positive



Positive

Laboratory		
Molecular Pathology	COVID-19 ORF1	COVID-19 E-gene
7/7/2020 16:00 EDT	Negative	(A) Positive



Positive

If either the ORF1 or the E-gene is positive, then results are interpreted as positive



Atrium Health

# Influenza/Respiratory Virus Testing

- **Respiratory Pathogen Panel (RPP) PCR is the recommended test for all inpatients**
- Influenza or other respiratory viruses in immunocompetent outpatients is primarily a clinical diagnosis
  - If immunocompromised can consider RPP PCR
- In adult populations, rapid influenza tests should **not be used** due to low sensitivity (high false negatives)

# COVID & Influenza Vaccine



- Vaccination is a requirement at Atrium Health
- Vaccines protect healthcare workers, patients, and communities from becoming ill
- COVID-19:
  - The vaccines authorized in the United States are highly effective at preventing severe disease, hospitalization and death
- Influenza: must get re-vaccinated annually due to changing flu strains
  - Vaccine efficacy varies from year to year, however:
    - Influenza vaccine is currently the best way to prevent influenza
    - Data suggests vaccination may also lessen severity of disease if you do get the flu
- Religious and medical exemption process is available through Teammate Health

# Multi-drug resistant organisms (MDRO)

- See Physician Connect → Infectious Disease for most up-to-date Atrium Health AntibioGrams
- Over 2.8 million antibiotic resistant infections in U.S. every year with at least 35,000 deaths

Antibiotic Resistant Threats in the United States, 2019

CDC Urgent Threats	CDC Serious Threats
Carbapenem-resistant <i>Acinetobacter</i>	Drug-resistant <i>Candida</i>
<i>Candida auris</i>	ESBL-producing <i>Enterobacterales</i>
<i>Clostridioides difficile</i>	Vancomycin-resistant <i>Enterococci</i> (VRE)
Carbapenem-resistant <i>Enterobacteriaceae</i> (CRE)	Multi-drug resistant <i>Pseudomonas aeruginosa</i>
	Methicillin-resistant <i>Staphylococcus aureus</i> (MRSA)





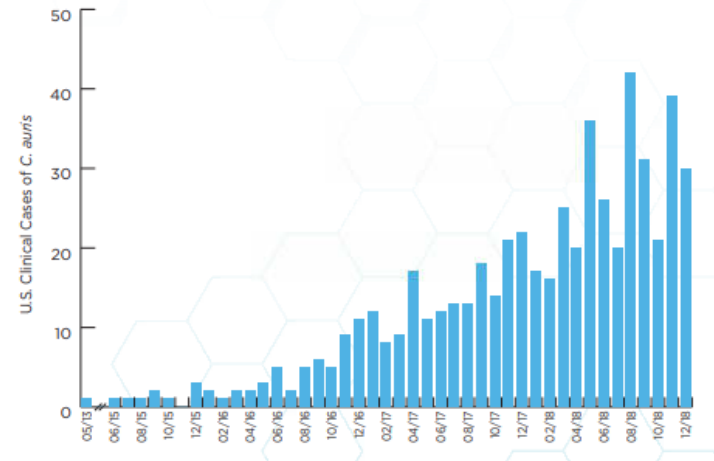
# Drug resistant *Candida Auris*

- An emerging multi-drug resistant yeast
- Can cause severe infections
- Isolated from blood, urine, respiratory, external ear, biliary, wounds
- Often multi-drug resistant, with some strains resistant to all classes of antifungals
- Can cause outbreaks in healthcare facilities
- **Prevent spread by:** Contact Precautions, hand hygiene, and cleaning of the environment using agents that work against *C. difficile*

[Drug-Resistant Candida Auris \(cdc.gov\)](https://www.cdc.gov/drug-resistant/candida-auris/)

## CASES OVER TIME

*C. auris* began spreading in the United States in 2015. Reported cases increased 318% in 2018 when compared to the average number of cases reported in 2015 to 2017.



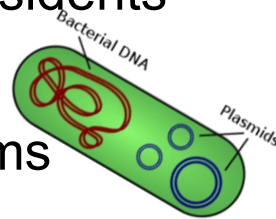
**Atrium Health**

# Carbapenem Resistant *Acinetobacter*

- Gram negative bacteria commonly found in the environment, like in soil and water
- Can cause pneumonia, wound, bloodstream, and urinary tract infections
- Nearly all infections happen in patients who recently received care in a healthcare facility – infections tend to occur in patients in intensive care units
- Some *Acinetobacter* are resistant to nearly all antibiotics
- **Prevent spread by:** Antibiotic Stewardship, Contact Precautions and hand hygiene, and good cleaning of the environment

# Carbapenem Resistant *Enterobacteriaceae* (CRE)

- *Enterobacteriaceae*: gram negative bacteria which are common residents of GI tract are a frequent cause of HAIs
- CRE are **resistant to almost all antibiotics** including carbapenems
  - In many cases no antibiotics left to treat them
- **Capacity to spread very quickly** in healthcare facilities (plasmid transfer)
- Rapidly growing problem in healthcare facilities with **numerous outbreaks**
- Strict Contact Precautions and hand hygiene, chlorhexidine (CHG) bathing where appropriate, good cleaning of the environment and antibiotic stewardship effectively reduce spread
  - Some facilities cohort patients with CRE on specific units



# MRSA Prevention

Patients with MRSA do not need to be placed on Contact Precautions

Patients are screened for MRSA risk factors on admission. If patient has risk factor or if admitted to high-risk unit, they will be screened for MRSA.

## Automatic Decolonization

- MRSA decolonization will automatically be ordered in patients with:
- MRSA active on Problem List at time of admission
  - An admission diagnosis of MRSA
  - A new MRSA positive result during the hospitalization (if not decolonized already during current admission)
- Goal to prevent hospital acquired MRSA infections in those found to be colonized
  - 5 days of Intranasal mupirocin twice daily
  - 5 days of CHG baths (longer if central line in place or in ICU where daily CHG baths are protocol)

# *Clostridioides difficile* (*C. difficile*)

- Antibiotic exposure and fecal-oral transfer by hands of healthcare worker are primary risk factors
- Spores persist for months in environment and require sporicidal agent such as bleach to kill
- Good antibiotic stewardship and infection prevention practices are key to prevention
- **Contact Enteric Precautions:**
  - Precautions are auto-ordered when *C. difficile* test is ordered
  - May d/c isolation if Antigen/toxin both negative or if PCR negative
  - If toxin or PCR positive, continue isolation for duration of hospitalization and upon readmission if positive test in the past 8 weeks (regardless of whether patient has repeat tests which are negative)
  - Continue isolation if on *C. diff* treatment

# *C. difficile* Adult Screening Standing Order

## *C. diff* Screening Criteria

### High risk patients are identified if they have:

- > 3 watery stools in the last 24hrs NOT related to a clinical condition or medication

### AND

- Any one of the following criteria in the past 48 hours:
  - WBC > 12,000 or < 1000
  - Fever > 100.4F or 38.0C

- Nursing will screen patients for *C. diff* criteria upon admission & in daily, ongoing assessments
- If screening criteria met, patient is deemed as high risk for *C. diff* and an order will be placed **automatically** for ***C. diff* stool specimen & Contact Enteric Isolation**

- This is based on the “*Clostridium difficile* Screening Standing Physician Order”
- Includes: Inpatient & Observation Acute Care Patients and Rehab patients  $\geq 18$  years

# *C. diff* Testing

- **ANY** positive test on or after hospital day 4 counts as Hospital Onset for public reporting/value-based purchasing
  - *C. diff* Reflex testing utilized at Atrium Health
    - Ag/Toxin EIA done, if discrepant results the sample is then automatically reflexed to PCR
    - **PCR is extremely sensitive** and can pick up either active disease or colonization
- Testing pearls:
  - **Important to test only if high suspicion of disease**
  - No test of cure
  - Repeat tests do not impact clearance from Contact Enteric Isolation
  - No repeat *C. diff* testing allowed within 7 days of last test
  - Test cannot be ordered within 24 hours of patient receiving laxatives
  - Formed or soft stools will be rejected by lab and test will be cancelled
  - Test will be cancelled if specimen not collected within 48 hours



# Tuberculosis

- Order appropriate diagnostic tests for signs or symptoms of active TB
- Patients at high risk include:
  - HIV infected, foreign born, close contacts of active TB, correctional facility residents, medically underserved, and alcohol abusers
- Implement **airborne precautions** if active pulmonary, laryngeal, or draining extrapulmonary TB suspected
- Criteria for discontinuing airborne precautions:
  - Alternate diagnosis confirmed
  - 3 negative smears 8 hours apart (1 early morning)
  - Effective therapy at least 2 weeks **and** clinically improving





# Standard Precautions

- Assume all patients are potentially infectious
- Wear appropriate personal protective equipment (PPE) depending on the task performed to protect yourself from exposure to body fluids, non-intact skin, and mucous membranes
- **Always** use sharps safety devices



# Role of Environment

- Evidence that **contaminated surfaces play an important role in transmission of HAIs**
- Pathogens can live on equipment and surfaces for months
- Numerous outbreaks from contaminated equipment
- **Disinfect** tools (stethoscope, otoscope, etc.) with hospital approved disinfectant wipes after use



# Isolation Precautions

3 routes of transmission when Standard Precautions alone are not adequate:

- Contact
- Droplet
- Airborne



# Contact Precautions



## Indications:

- Multidrug-Resistant Organisms (MDRO)  
VRE  
CRE  
ESBL
- Scabies & Lice
- Wounds with uncontained drainage

## Personal Protective Equipment (PPE):

- Gloves and gown **upon every room entry**
- Hand hygiene upon room entry/exit

# Contact Enteric Precautions



## Indications:

- C. difficile
- Norovirus
- Acute diarrhea with unknown cause

## PPE:

- Hand Hygiene upon room entry
- **Gloves and gown upon every room entry**
- Wash hands using soap and water upon room exit
- Bleach wipes to disinfect equipment

# Droplet Precautions



- **Indications:**

- Haemophilus influenzae
- Neisseria meningitidis
- Pertussis

- **PPE:**

- Hand hygiene upon room entry and exit
- **Surgical mask upon every room entry**

# Airborne Precautions N95/PAPR



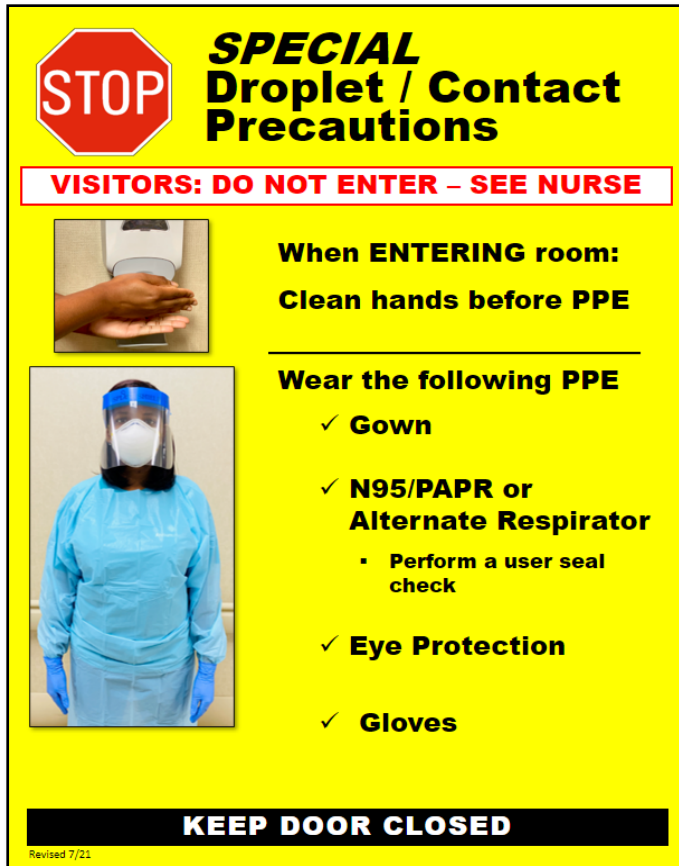
- **Indications:**

- Tuberculosis (suspected or confirmed pulmonary TB)
- Disseminated shingles
- Varicella

- **PPE:**

- Hand hygiene upon room entry and exit
- N95 or PAPR upon room entry
- Annual fit testing is required
- Negative Pressure room required


# Special Droplet Contact




**STOP**

**SPECIAL  
Droplet / Contact  
Precautions**

**VISITORS: DO NOT ENTER – SEE NURSE**



**When ENTERING room:  
Clean hands before PPE**



**Wear the following PPE**

- ✓ **Gown**
- ✓ **N95/PAPR or Alternate Respirator**
  - Perform a user seal check
- ✓ **Eye Protection**
- ✓ **Gloves**

**KEEP DOOR CLOSED**

Revised 7/21

- **Indications:**

- Covid Positive
- Symptomatic Persons Under Investigation for Covid
- Respiratory pathogen illnesses (ex. influenza)

- **PPE:**

- Hand hygiene upon room entry and exit

- Upon room entry:

- Gown
    - N95 or PAPR
    - Eye Protection
    - Gloves

- Negative pressure room not required
- Keep door closed



## Discontinuation of Isolation Precautions for Respiratory Pathogen Illnesses

Initiate Special Droplet Contact isolation when RPP (Respiratory Pathogen Panel PCR) is ordered OR when patient is admitted with respiratory viral illness.

Diagnosis	Type of Isolation	Duration of Isolation
<b>Respiratory pathogen/influenza like illness with no RPP sent or negative RPP</b>	<b>Special Droplet Contact</b>	<ul style="list-style-type: none"> <li>If no RPP sent, maintain Special Droplet Contact precautions until patient is clinically improved and afebrile for at least 72 hours. If suspected COVID despite negative RPP, repeat RPP or COVID PCR as clinically indicated and follow COVID isolation policy.</li> <li>If the initial RPP is negative (AND the patient has not been treated with any antiviral medications for &gt;48 hours prior to obtaining specimen), and symptomatically improved for &gt; 72 hours, then Special Droplet Contact precautions may be discontinued.</li> <li><b>Common antivirals include:</b> Tamiflu (Oseltamivir), Relenza (Zanamivir), Rapivab (Peramivir), Baloxavir, Ribavirin (Tribavirin), Remdesivir or other COVID therapies.</li> </ul>
<b>Respiratory Pathogen Illnesses (RPP PCR lab test)</b> Influenza (seasonal)* RSV Parainfluenza Rhinovirus Metapneumovirus Adenovirus Coronavirus (other than MERS) Human Bocavirus Chlamydomphila Pneumoniae Mycoplasma Pneumoniae SARS-CoV-2 (COVID)	<b>Special Droplet Contact</b>	<p><b>Respiratory viruses other than SARS-CoV-2 (COVID):</b></p> <ul style="list-style-type: none"> <li><b>All Patients:</b> Minimum of 7 days from positive test with symptoms improved for at least 72 hours without fever, off antipyretics.</li> <li>Immunocompromised patients (oncology, BMT, solid organ transplant), Pediatric/Neonatal ICU or progressive care units, and Skilled Nursing Facilities, <u>in addition to above</u>, need negative RPP at least 48 hours after the patient is off antiviral therapy</li> </ul> <p><b>SARS-CoV-2 (COVID) positive:</b></p> <ul style="list-style-type: none"> <li>Maintain Special Droplet Contact precautions for a minimum of 21 days from date of first positive AND at least 72 hours symptoms improved and without fever, off antipyretics.</li> <li>Individuals who have been asymptomatic throughout their illness since diagnosis with covid can be cleared prior to 21 days with two negative swabs 24 hours apart</li> </ul>

# Prevent Device Associated Infections

- Risk of infection increases each day an invasive device remains in
- Assess the need for devices daily and remove when no longer necessary (e.g. central lines, foley catheters, ventilators)



# Choosing the appropriate venous access – Adult power plan

## Midline indications:

- IV Therapy/Antibiotics <4 weeks
- Unsuccessful PIV access after 3 attempts
- Home IV Vancomycin 7 days or less

## PICC indications:

- IV Antibiotics planned for > 28 days
- TPN
- Hypotensive patient in ICU with potential for pressors
- Irritant or Vesicant (i.e., chemotherapy)
- Unable to place midline
- Prior to discharge, needing IV therapy >4 weeks as outpatient
- Home IV Vancomycin  $\geq 7$  days

- **Goal** = utilization of least invasive line to minimize risk of central line associated bloodstream infection
- Most Primary Enterprise facilities have the ability to place Midlines, which are NOT central lines

# Prevent Central Line Associated Bloodstream Infections (CLABSI)

## Central Line Insertion Bundle

Perform **hand hygiene** before & after catheter insertions or manipulation

Use **chlorhexidine**/alcohol antiseptic (e.g. Chloraprep) for skin preparation (back & forth motion for 30 seconds and allow to air dry)

- Scrub back & forth for 2 minutes on moist insertion site (e.g. inguinal fold)

Use **full barrier** precautions during insertion (sterile gown & gloves, cap, mask, and full body drape)



**Avoid** using the **femoral** site in adults when possible

- Subclavian site preferred if can be done safely

**Assess the need for the catheter each day and remove ASAP**

Apply chlorhexidine-impregnated dressing (preferred, 3M CHG gel pad) or sponge (Biopatch) to all central line sites unless allergy identified



**Atrium Health**

# Prevent Catheter Associated Urinary Tract Infections (CAUTI)

- Use indwelling urinary catheter only for approved indications and remove as soon as possible!
  - Risk of infection increases 5% each day catheter remains in place
- Consider alternatives to catheter:
  - Maximizing toilet access
  - Scheduled toileting
  - Use of underpads and briefs
  - Intermittent (In & Out) catheterization
  - Use of external catheters (condom catheters or PureWick)



PureWick



Condom catheter



# Patients with Urinary Catheter

- If your patient needs an indwelling urinary catheter, please place an order for the Urinary Catheter Protocol
- If the Urinary Catheter Protocol is ordered, the nurse will:
  - Perform daily assessment of need
  - Remove urinary catheter if patient does not meet appropriate indications for catheter
  - Post catheter removal, nurse will:
    - Assess all patients for urinary retention for up to 24 hours after catheter removal.
    - Perform bladder scan, as needed
    - If bladder scan > 400ml and patient unable to void, nurse will perform intermittent catheterization as needed, up to a maximum of 3 times in 24 hours, for retention post urinary catheter removal
    - **Exclusions:** Patients < 18 years of age, males > 60 years, urologic/perineal procedures, urinary catheter inserted by urologist, Carolinas Rehabilitation facilities

# Appropriate indications for Urinary Catheter

- Urology consult or urinary catheter inserted by urologist
- Urologic/perineal procedures or continuous bladder irrigation
- Bladder outlet obstruction/Acute urinary retention
- Movement intolerance (e.g., respiratory or hemodynamic instability)
- Prolonged immobilization due to unstable spine/pelvic/hip fractures
- Deep tissue, stage III/IV, or unstageable wound to sacrum/buttocks/perineum AND incontinent
- End of life comfort care
- Day of surgery (not to exceed 24 hours post-op)
- Epidural in place
- Critically ill:
  - Chemically paralyzed/sedated AND ventilated
  - Prolonged deep sedation (> 2 hours)
  - Vasoactive medication (vasopressors, inotropes)
  - Therapeutic Hypothermia
  - Large volume resuscitation (anticipated ongoing volumes > 30ml/kg)
  - Urinary output monitoring and documentation every 1 hour required for critical condition
  - Acute increased ICP > 20 mm Hg



# Tips on Urinalysis Interpretation

*The following are meant to aid in the interpretation of urinalysis only in patients who are NOT pregnant, about to undergo a urologic procedure, or neutropenic*

Finding	Indication of Finding	Clinical Application
Epithelial Cells	Presence of squamous epithelial cells from the external urethra >15 squamous epithelial cells indicate contamination	<ul style="list-style-type: none"> <li>Should be used to determine quality of sample</li> <li>Contaminated samples should not be used to make treatment decisions as surface bacteria have been introduced into the urine sample and sample is not reflective of urinary tract flora</li> </ul>
Nitrite	Select bacteria convert Nitrate → Nitrite Nitrites can be negative in the presence of certain bacteria such as <i>Pseudomonas</i> or <i>Enterococcus</i>	<ul style="list-style-type: none"> <li>Indicates the presence of certain bacteria which produce nitrites.</li> <li>The presence of bacteria may indicate asymptomatic bacteriuria or a true infection.</li> <li>Absence does not exclude UTI as some urinary pathogens do not produce nitrites</li> <li>Positivity only indicates presence of certain bacteria that may represent asymptomatic bacteriuria or true infection</li> <li>Not diagnostic for UTI</li> </ul>
WBC	Normal count 2-5 WBC/hpf Pyuria is considered > 10 WBC/hpf	<ul style="list-style-type: none"> <li>Presence of WBCs indicates inflammation, not necessarily infection</li> <li>Absence of pyuria makes UTI unlikely and helps <u>rule out</u> a UTI</li> <li>Presence of pyuria is <u>not diagnostic</u> for UTI</li> <li>Pyuria alone should NOT be considered diagnostic for UTI; assess for presence of symptoms</li> </ul>
Leukocyte Esterase	Released from lysed WBC and indicates inflammation	<ul style="list-style-type: none"> <li>Indicates the presence of WBC, so if they are present, so is leukocyte esterase</li> <li>Not diagnostic for UTI as urine WBCs indicate inflammation</li> </ul>
Bacteria	Presence could indicate contamination or infection	<ul style="list-style-type: none"> <li>Presence of bacteria may indicate asymptomatic bacteriuria or infection; not diagnostic for UTI</li> </ul>

A UA alerts you to the presence or absence of bacteria and WBC in the urine. **These findings MUST be evaluated in combination with the presence or absence of symptoms of a UTI!**



**Atrium Health**



# Surgical Site Infection Prevention

- Ensure appropriate dose (based on weight and renal function), timing and choice of preoperative antibiotics
- Use alcohol containing surgical prep (ChloraPrep, Duraprep™, etc) to decrease risk of surgical site infections
- Use surgical prep as per manufacturer recommendations
- Maintain blood glucose below 200 mg/dl through post-op day 2
- Maintain normal body temperature (>35.5) throughout procedure and on arrival in PACU
- Pre-op shower with chlorhexidine night before and morning of surgery and in pre-op area for high-risk surgeries (Colon, Hip/Knee, Fusion, CABG, etc.)



# Additional Colon Surgical Site Infection Prevention Measures



- Use of wound protectors to minimize contamination
- Change gown, gloves and re-drape prior to closure
- Use second sterile tray for skin closure
- For appropriate surgeries, prescribe preop bowel preparation and oral antibiotics the day prior to surgery

# Hysterectomy Surgical Site Infection Prevention Measures

## Hysterectomy bundle elements:

- CHG wipes in pre-op
- Alcohol containing skin prep
- Vaginal Prep
  - Betadine vs CHG (surgeon's choice)
- Appropriate antibiotics
  - Selection, timing, dosing and redosing
- **For Non laparoscopic abdominal hysterectomies only**
  - Change gown, gloves and re-drape prior to closure
  - Use second sterile tray for skin closure

# Exposures to Infectious Agents

- If exposed to blood/body fluids with visible blood or internal body fluids
  - Wash affected area with soap and water or
  - Rinse eyes with water
- For Bloodborne Pathogen exposure, **promptly** contact Teammate Health at 704-355-SAFE (7233)
  - You will be guided to complete all necessary steps and will be given any recommended post-exposure prophylaxis (within 2-hour time frame for high-risk exposure)
- Other exposures (TB, *N. meningitidis*, pertussis, varicella, scabies, covid, etc.) are co-managed by Teammate Health and Infection Prevention
  - Exposed individuals are contacted for recommended follow-up upon laboratory confirmation



# Health Department Reporting

- Physicians are required by NC state law to report communicable diseases to county health department
- See Physician Connect → Infectious Disease → Infection Prevention → **NC Communicable Disease Manual** to locate list of diseases and conditions reportable to county health department and reporting form
- Physician's responsibility to report inpatient and ER clinical syndromes

# County Health Departments

Contact Health Department based on residence of patient

- Cabarrus Health Department: 704-920-1358
- Mecklenburg Health Department: 980-314-9206
- Rowan Health Department: 704-216-8784
- Stanly Health Department:
  - Main number: 704-982-9171
  - On-call/Provider line: 704-961-2691

# Resources

- **Infection Prevention Department contact:**
  - Halo: Atrium Infection Prevention After-hours Emergency
  - Pager: 704-355-4088 ext. **97025** (enter your 10-digit callback number)
- **Infection Prevention Manual** (Intranet), Policies → PolicyTech → Atrium Health → Infection Prevention
- People Connect → Physician Connect → **Clinical Reference → Infectious Disease**
  - Bloodborne Pathogen Exposures
  - Infection Prevention
  - Microbiology
  - Clinical Guidelines
  - Stewardship
  - Outbreak Information

# Overview of Pain Assessment & Management



# Definition of Pain

- Pain is a multifactorial and multidimensional experience that is unique to the individual (Core Curriculum for APHPC).
- It is an unpleasant sensory and emotional experience associated with actual or potential tissue damage or described in terms of such damage.
- Pain is always subjective....It is unquestionably a sensation in a part or parts of the body, but it is also always unpleasant and therefore also an emotional experience.

# Economic Impact

- Annual cost is \$560-635 billion
  - Health care: \$261-300 billion
  - Lost productivity: \$297-336 billion
- 2008 Medicare expenditure for pain was \$65.3 billion
  - This was 14% of all Medicare cost

- IOM (Institute of Medicine). 2011. *Relieving Pain in America: A Blueprint for Transforming Prevention, Care, Education, and Research*. Washington, DC: The National Academies Press. Improving Acute Pain Management. [www.med-iq.com/a567](http://www.med-iq.com/a567) . 2013 Use of Opioids for the Treatment of Chronic Pain. A statement from the American Academy of Pain Medicine. <http://www.painmed.org/files/use-of-opioids-for-the-treatment-of-chronic-pain.pdf>

5/26/2021

# Pathophysiology of Pain

- Nociceptive: Pain caused by activation of nerve receptors/endings or other pain sensitive structures as Somatic or Visceral
- Neuropathic: Pain associated with insult or injury to the peripheral or central nervous system

# Nociceptive Pain

- Nociceptors are sensory receptors found in the skin, visceral, muscle and connective tissues which conduct and encode noxious stimuli
- Nociceptive pain classifications:

## Somatic Pain

### Characteristics:

- Sharp
- Pressure-like
- Well-localized
- Throbbing

### Examples:

- Musculoskeletal
- Headache
- Laceration

## Visceral pain

### Characteristics:

- Diffuse
- Aching
- Cramping

### Examples:

- Obstruction
- Ischemia
- Inflammation of abdominal or thoracic organs

# Neuropathic Pain

Caused by a lesion or disease affecting the somatosensory system

## Peripheral neuropathic pain

Characteristics:

- Burning
- Sharp
- Shooting

Examples:

- Diabetic neuropathy
- Post-herpetic neuralgia
- HIV sensory neuropathy

## Central neuropathic pain

Characteristics:

- Burning
- Sharp
- Shooting

Examples:

- Spinal cord injury
- Trigeminal neuralgia
- Post-stroke syndromes
- Multiple sclerosis

# Classification of Pain

- Acute Pain – characterized by pattern of onset with recognized precipitating cause and often accompanied by physiologic signs caused by hyperactivity of the CNS such as tachycardia or hypertension
- Chronic Pain – pain that persists longer than three months and often lacks the physiologic signs seen in acute pain
  - Often undertreated
  - Vague and changing location(s)

# Breakthrough Pain

- Transient pain of moderate or greater intensity occurring despite presence of baseline analgesia
- Three types of breakthrough pain:
  - Incident pain – associated with movement or activity
  - End of dose failure – marked worsening of pain typically at the end of dosing interval for regularly scheduled analgesics
  - Uncontrolled baseline pain – continued uncontrolled pain in the presence of regularly scheduled analgesics

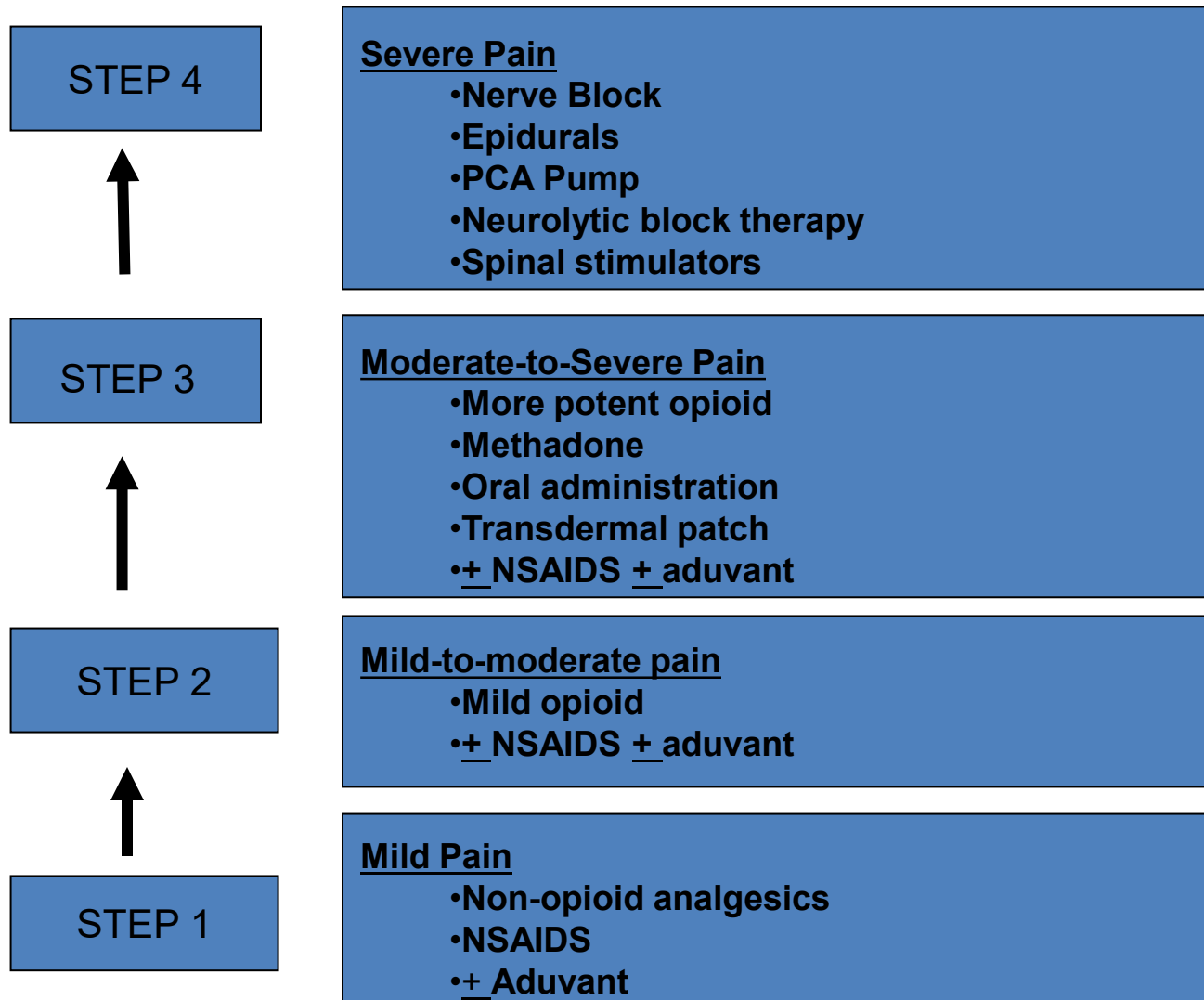
# Essential Components of Pain History

**Most reliable indicator of intensity and impact of pain is patient's own report**

- Onset, location, duration, quality, characteristics, aggravating/relieving factors
- Temporal aspects (is it: acute, chronic, intermittent, breakthrough, or incident)
- Analgesic response to previous and/or use of current analgesics
- Risk stratification for aberrant drug-taking behaviors



# Modified WHO Analgesic Ladder



5/26/2021

9

# Analgesic Treatment

- Mild Pain
  - Aspirin
  - Acetaminophen (Tylenol)
  - Non-steroidal (ibuprofen, naproxen, etc)
- Moderate Pain
  - Codeine (Tylenol #3)
  - Hydrocodone (Vicodin, Lortab)
  - Oxycodone (Percocet, Oxycontin)
  - Oral Morphine (MS Contin, Oramorph, Kadian, Roxanol)
- Severe Pain
  - IV Morphine
  - Hydromorphone (Dilaudid)
  - Fentanyl (Duragesic)
  - Methadone (Dolophine)

***\*At the time of prescribing opiates, all patients should be evaluated for potential interventional pain management in an effort to optimize comfort and provide nonpharmacological treatment.***

# Opioid Time to Onset

Generic Drug	Onset (Min)	Peak	Duration (Hr)
Oxycodone or Morphine PO	30-60 min	60-90 min	3-6 hours
Oxycontin	30-60min	1.5-3 hours	8-12 hours
MS Contin	30-60 min	4-5 hours	8-12 hours
Morphine IV	5-10 min	15-30min	3-4 hours
Dilaudid IV	1-5 min	10-20 min	3-4 hours
Fentanyl IV	1-5 min	3-5 min	<1 hour
Fentanyl patch	12-16 hours	24 hours	48-72 hours

[http://www.cwpcn.ca/uploads/Opioid\\_Drug\\_Chart.1277832276.pdf](http://www.cwpcn.ca/uploads/Opioid_Drug_Chart.1277832276.pdf)

5/26/2021

# CDC Guideline for Prescribing Opioids for Chronic Pain, 2016

- Published in March 2016 in response to the growing opioid epidemic in the United States
- Data emerging over several decades that opioid prescriptions have increased as have opioid misuse disorders and opioid overdoses
- Due to escalation of opiate abuse and diversion, all patients should be screened for history or active substance abuse
- In 2015:
  - Over 15,000 Americans died from overdose of prescription opioids
  - Over 1,000 Americans were treated in the emergency department setting for opioid misuse
- Guidelines are in place to address chronic nonmalignant pain

# CDC Guideline for Prescribing Opioids for Chronic Pain, 2016

- There is lack of consensus for providers on how to manage chronic pain
- These guidelines provide guidance on how to manage chronic pain in the adult population outside the setting of active cancer treatment, palliative care, or end of life care
- To review the guidelines, please go to following website
  - [CDC Guideline for Prescribing Opioids for Chronic Pain, 2016](#)
- For additional resources to assist you in practice
  - <http://www.cdc.gov/drugoverdose/prescribing/resources.html>

# NC Medical Board Resources

- In response to the public health crisis related to opioid overdoses, the NC Medical Board will contact prescribers who meet one or more of the following criteria and perform a review:
  - 1. The prescriber falls within the top one percent of those prescribing 100 milligrams of morphine equivalents (MME) per patient per day.
  - 2. The prescriber falls within the top one percent of those prescribing 100 MMEs per patient per day in combination with any benzodiazepine and is within the top one percent of all controlled substance prescribers by volume.
  - 3. The prescriber has had two or more patient deaths in the preceding twelve months due to opioid poisoning. (The initial review period for which data was received looked at patient deaths between July 2014 and June 2015. The first batch of investigations opened cover patient deaths in this date range.)
- For more information, please review the NCMB website
  - [NC Medical Board Resources for Opioid Prescribing](#)



# Atrium Health

## Restrictive Interventions

What Physicians and APPs must know

2021

# Restrictive Interventions....first, the law

*A-0199*

*§482.13(f)(2) Training Content. - The hospital must require appropriate staff to have education, training, and demonstrated knowledge based on the specific needs of the patient population in at least the following:*

- (i) Techniques to identify staff and patient behaviors, events, and environmental factors that may trigger circumstances that require the use of a restraint or seclusion.*

*Interpretive Guidelines state:*

*“At a minimum, physicians and other LIPs authorized to order restraint or seclusion by hospital policy in accordance with State law must have a working knowledge of hospital policy regarding the use of restraint and seclusion. Hospitals have the flexibility to identify training requirements above this minimum based on the competency level of their physicians and other LIPs and the needs of the patient population that they serve.”*



# Restrictive Interventions

- Atrium Health will limit the use of restraints to clinically appropriate and adequately justified situations in a manner that protects the patient's health and safety and preserves the patient's dignity, rights and well being.
- A restraint is used only when less restrictive interventions, non-physical interventions, and alternative strategies have been determined to be ineffective.

# Restrictive Intervention....what is it?

- A restraint is any manual method, physical or mechanical device, material or equipment that immobilizes or reduces the ability of a patient to move his or her arms, legs, body or head freely;

.....or a drug or medication when it is used as a restriction to manage the patient's behavior or restrict the patient's freedom of movement and is **not** a standard treatment or dosage for the patient's condition.

# Restrictive Intervention....what is it not?

- A restraint **does not** include devices such as, but not limited to:
  - orthopedically prescribed devices,
  - surgical dressings or bandages,
  - protective helmets,
  - methods that involve the physical holding of a patient for the purpose of conducting physical examinations or tests
  - devices to protect the patient from falling out of bed
  - devices to permit the patient to participate in activities without the risk of physical harm

# Restrictive Intervention

- ASSESS and DOCUMENT underlying cause of behavior necessitating restraints (i.e. medications, oxygenation, infection, electrolyte imbalance, etc.)
- ALWAYS consider ALTERNATIVES such as reorienting, diversion items, safety education, and/or personal alarms.

# Restrictive Intervention

PRN orders for restraints are not allowed  
and will not be initiated



- If a nurse is calling for a restraint order, it **MUST** be entered as V.O. (verbal order) or T.O. (telephone order)

# Restrictive Intervention

Non-Violent	Violent, Self-destructive
MD must assess patient within 24 hours of initiation of the restraint	MD/NP/PA must do face-to-face evaluation <b>within 1 hour</b> of the initiation of the restraint; and sign the order
Subsequent orders are required <b>every calendar day</b> ; even if the restraint is discontinued that calendar day	Order limited to 4 hours: Adult 2 hours: child 9-17 1 hour: child < 9
***An order must exist for every calendar day that the patient has a restraints device applied***	MD/NP/PA must assess the patient in the time frame before writing a new order

# Restrictive Intervention

- Facilities must report to CMS each death:
  - That occurs while a patient is in restraints (other than the soft, cloth-like restraint)
  - That occurs within 24 hours of a patient being in restraints (other than the soft, cloth-like restraint)
  - That are known to the hospital that occur within 1 week after the restraint is removed **and** it is reasonable to assume that the use of restraint contributed directly or indirectly to the patient's death