

# Ethics Principles

Jason Ryan, MD, MPH



# Ethics

- Moral principles
- Govern individual or group behavior



# Principlism

- Practice of using principles to guide medical ethics
- Most common US framework for ethical reasoning
- **Four core principles**
  - Autonomy
  - Beneficence
  - Non-maleficence
  - Justice



# Autonomy

- **Most important US ethical principle**
- Absolute right of all competent adult patients
- To make decisions about their own healthcare
- Patient has “autonomy” over their own body



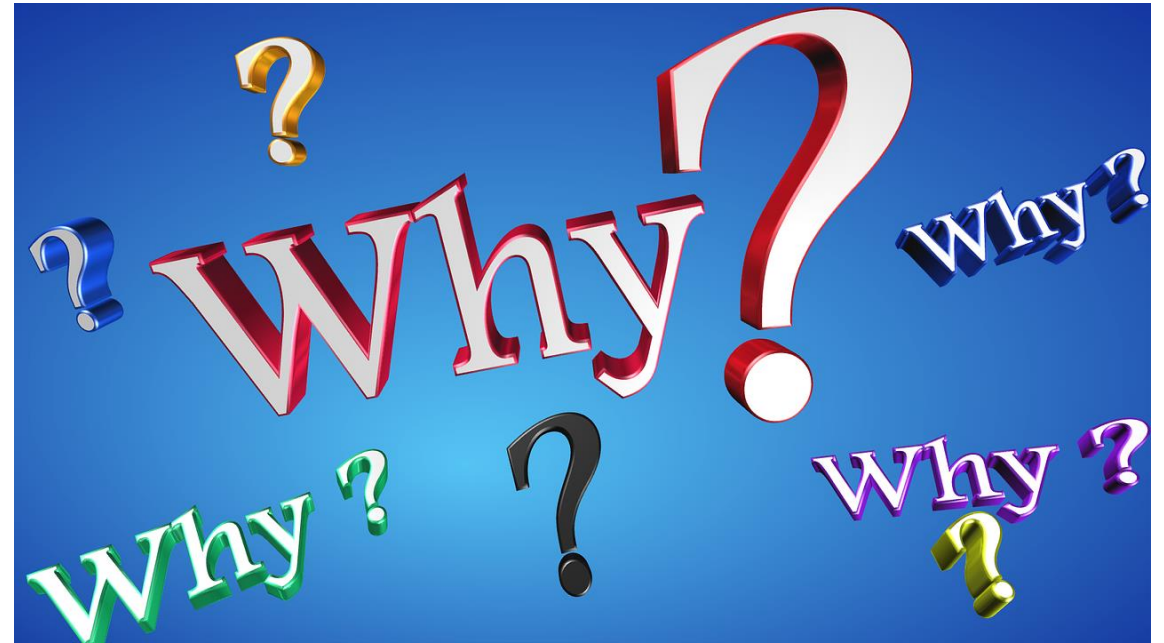
# Autonomy

- Includes right to accept/not accept medical care
- Providers must respect patient decisions
- Providers must honor their preferences



# Autonomy

- When patients decline medical care:
  - Okay to ask **why** they are declining
  - Avoid judging, threatening, or scolding
  - “You may die if you make this choice...”
  - “This choice is a mistake...”
  - “You should not do this...”



# Pregnancy

- Pregnant women have autonomy
- **May decline treatment**
- Even if baby's health is impacted



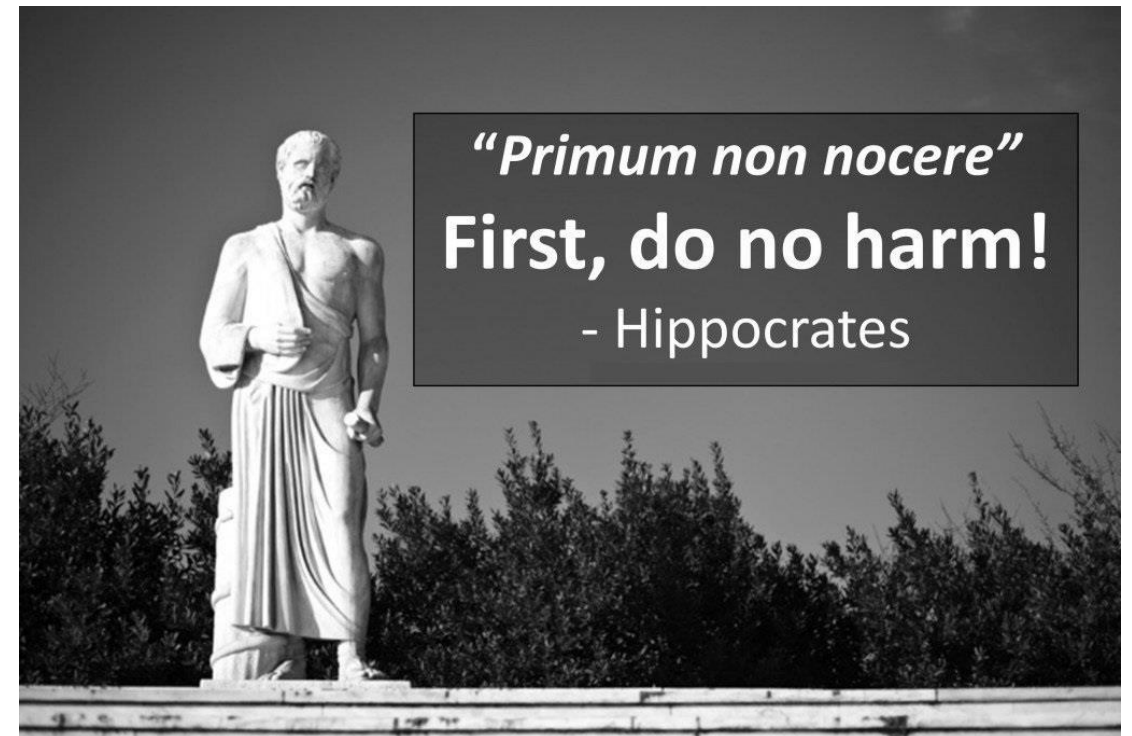
# Beneficence

- Providers must act in **best interests of patients**
- Usually superseded by autonomy
  - Patients may choose to act against their interests
  - Example: Patient may decline life-saving medical care



# Non-maleficence

- **Do no harm**
- Always balanced against beneficence
  - Risk versus benefits
  - Some harmful actions (surgery) are beneficial



# Justice

- Treat patients fairly and equally
- Also use health resources equitably
- Triage:
  - Form of “distributive justice”
  - Care delivered fairly to all



# Gifts from Companies

- Often drug or device companies/manufacturers
- Can influence physician behavior
- Generally acceptable if **educational and low value**
  - Educational dinner or textbook
  - Value usually should be <\$100
- Cash, tickets, vacations, other gifts NOT acceptable



# Honoraria

- **Fees** to physicians paid by industry
  - Goal usually to promote research about a new product
  - Example: Drug company pays physician to speak
- Acceptable but must be disclosed to audience
- Fee must be fair and reasonable
- Fee cannot be in exchange for physician using product



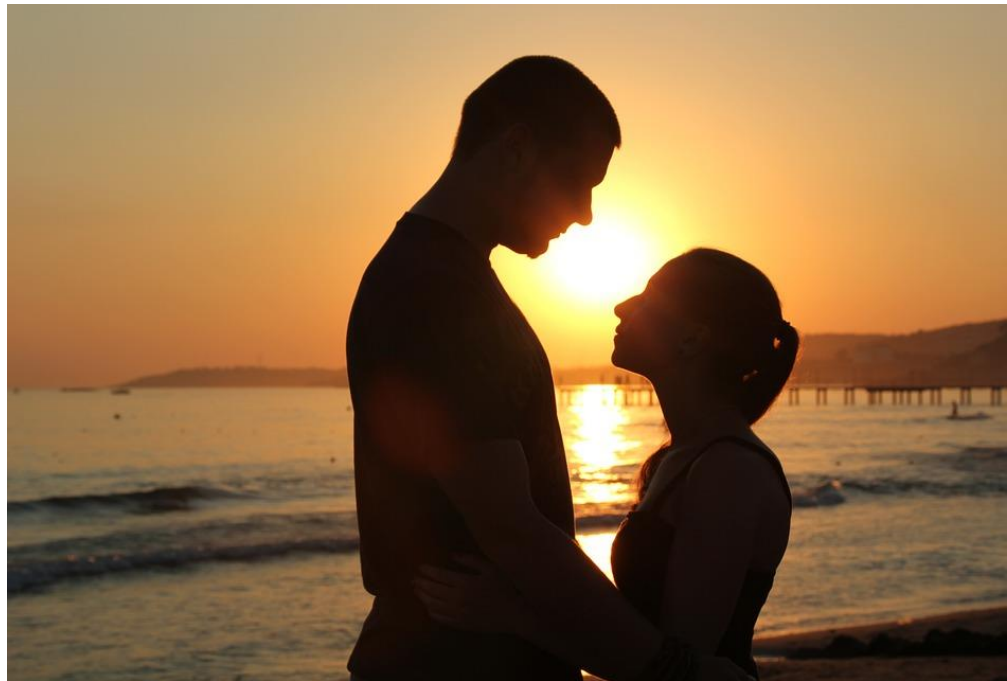
# Gifts from Patients

- No definite rules
- In general, small gifts are usually okay
- Large, excessive gifts usually not okay
  - May be viewed as given in exchange for special treatment
- Decline any gift with **questionable motive**
  - Patient wanting special treatment
  - Patient having a manic episode



# Romantic Relationships

- Relationships with current patients **never okay**
- Per AMA: Sexual contact within patient-physician relationship is misconduct



# Patient-Physician Relationship

- Physicians may decline to care for a patient
  - Do not have to accept all patients that request care
- Once relationship starts, cannot refuse treatment
  - Example: physician does not want to perform abortion
  - Still must assist the patient
  - **Refer to another provider**



# Medical Errors

- Mistakes/errors should be disclosed to patients



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# Family and Friends

- Most medical societies recommend against giving non-emergent medical care
  - Many ethical conflicts
- Emergencies are an exception



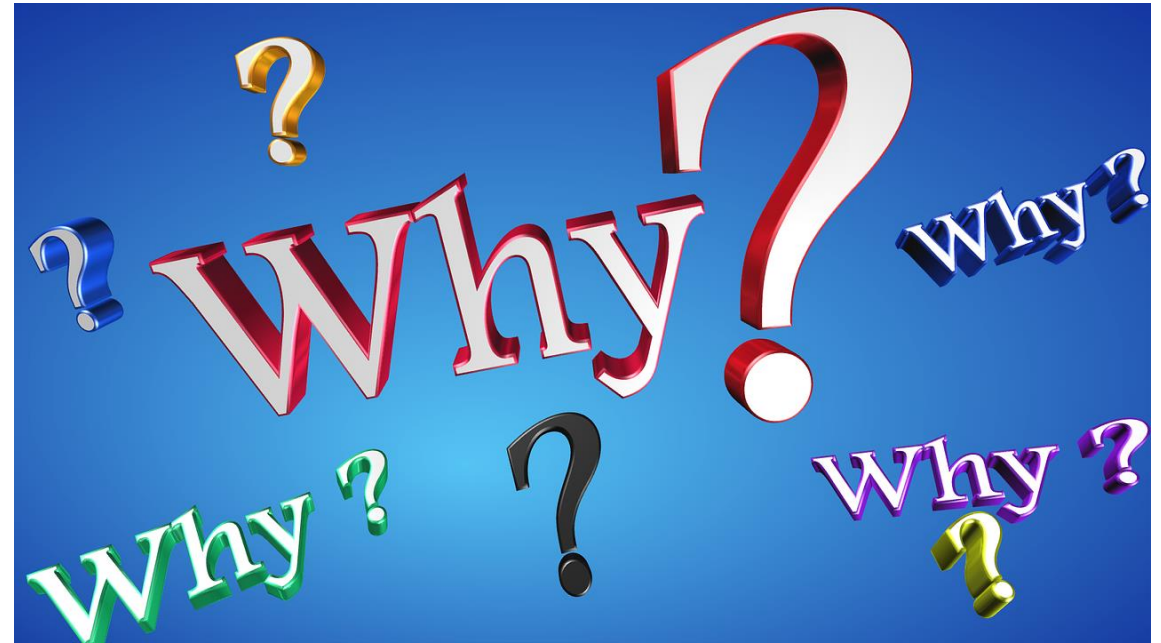
# Family of Patients

- May be present during patient encounters
- May answer for patients, disrupt interview
- Don't ask patient if they want family present
  - Patient may be afraid to say no
- Politely ask family for time alone with patient



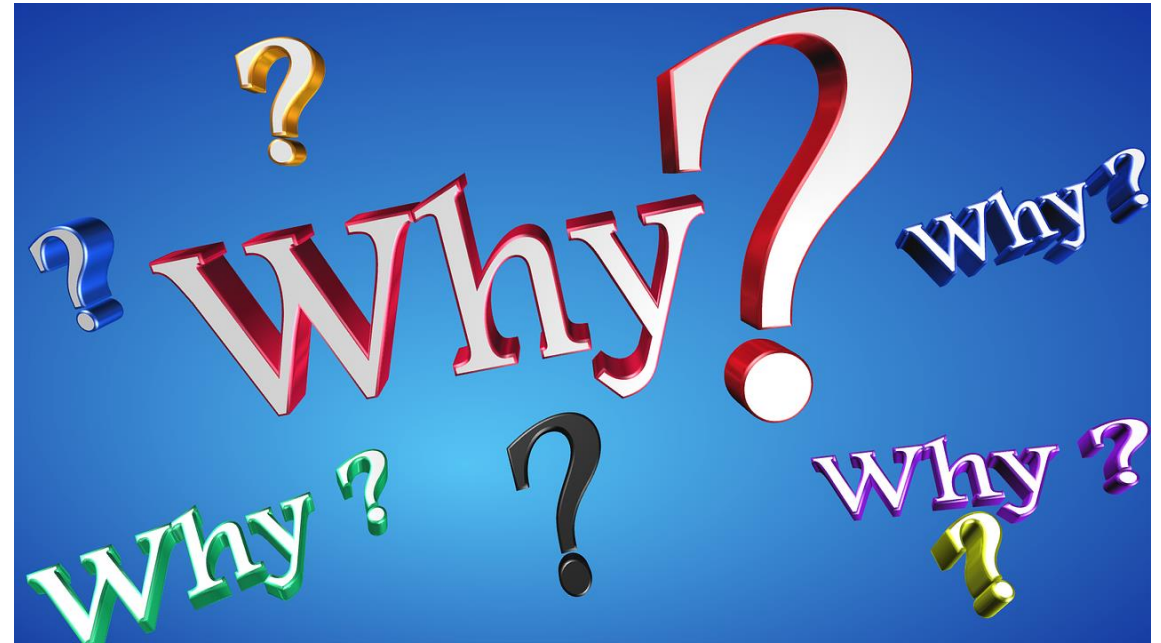
# Patient Refusal of Care

- Always try to understand **WHY**
  - Why doesn't patient want to take medications?
  - Why doesn't patient want to go for tests?
- Try to help
  - Provide more information
- **Avoid scolding or threats**
  - "You will get sick if you don't..."



# Emotional Patients

- Acknowledge the patient's feelings
  - “I understand you are upset because...”
- Always try to understand **WHY**
  - Why is the patient upset?
  - Check for understanding of issues
- **Avoid telling patients to calm down**
- Don't ignore emotions



# Informed Consent

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# Informed Consent

- All medical interventions require informed consent
- Patient must agree and consent to treatment
- Must inform patient about **benefits, risks, alternatives**

# Informed Consent

- **Benefits**
- **Risks**
  - Must describe all major adverse effects
  - Commonly known risks do not need to be described
  - Example: choking on pill
- **Alternative treatments**
  - Other therapies
  - What could happen with no treatment





# Informed Consent

- Must be in language the patient can **understand**
- Must use **trained language interpreters**
- Must be **voluntary** (not coerced)
- Patient must have **decision-making capacity**





# Informed Consent

- Patients may withdraw consent at **any time**



Jpeterson101

# Informed Consent

- **Every procedure** requires consent
  - Consent for one procedure does not imply consent for another
- Classic example:
  - *Mohr vs. Williams*
  - Non-life-threatening diagnosis detected in OR
  - Operation for right ear uncovered disease on left
  - Cannot operate left ear without consent
- Emergencies are an exception

# Informed Consent

## Exceptions

- Lack of decision-making capacity
- Emergencies
- Therapeutic privilege
- Waiver
- Minors

# Emergencies

- **Consent is implied** in an emergency
- Classic example: unconscious trauma patient



# Therapeutic Privilege

- May withhold info if disclosing would cause **dangerous psychological threat**
- Often invoked for psychiatric patients at risk of harm
- Information often temporarily withheld
- Disclosure plan put in place with family and other providers

# Therapeutic Privilege

- Does not apply to distressing test results
  - Cancer diagnosis would upset patient
  - Family cannot request information be withheld
- Cannot trick patient into treatment
  - **Cannot lie to patient** to get them to agree to therapy
  - Patient autonomy most important guiding principle



# Waiver

- Patient may ask provider not to disclose risks
- Waives the right to informed consent
- Provider not required to state risks over objection
- Try to understand **why** patient requests waiver

# Minors

- Usually defined as person under 18 years of age
- Only parent or legal guardian may give consent
- Exceptions
  - Emergency
  - Emancipated minors
  - Special situations





# Minors

## Emergency Care

- Consent not required (implied)
- Care administered even if parent not present
- Care can be administered against parents' wishes
  - Classic example: Parents are Jehovah's Witnesses
  - Physician may administer blood products to child
  - Do not need court order



# Emancipated Minor

- Minors can attain “legal adulthood” before 18
- Common criteria:
  - Marriage
  - Military service
  - Living separately from parents, managing own affairs
- Emancipated minors may give consent

# Minors

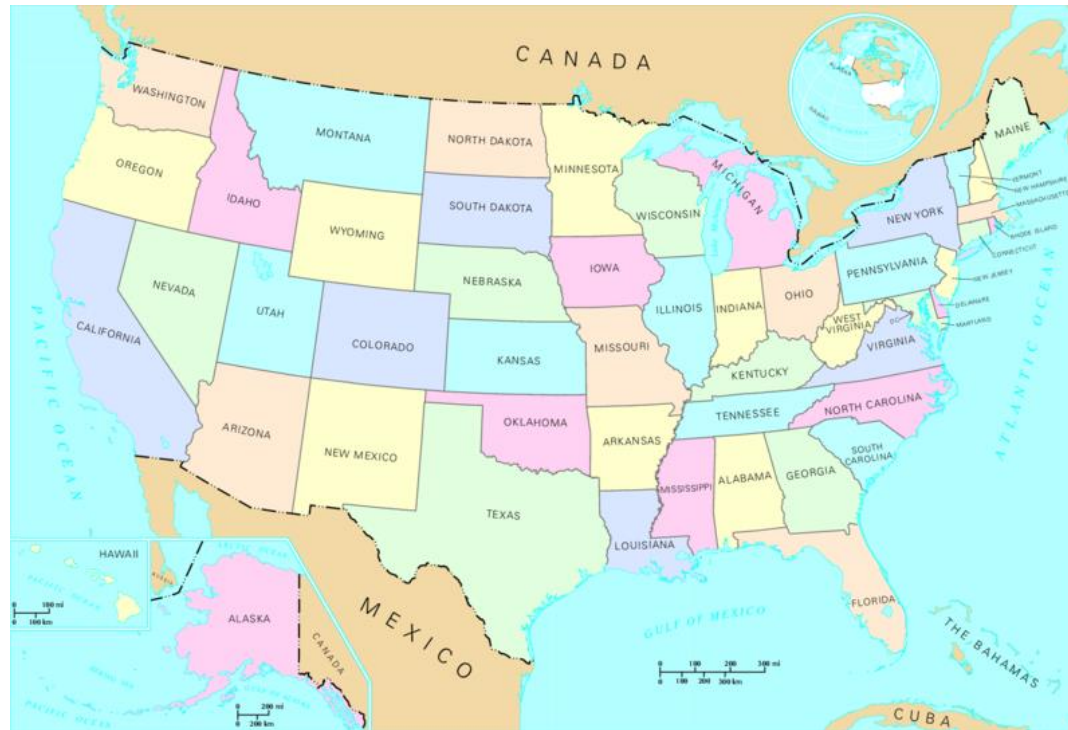
## Special Situations

- Most U.S. states allow minors to consent for certain interventions
- May be done without parental consent
- Contraceptives
- Prenatal Care
- Treatment for STDs
- Treatment for substance abuse



# Abortion

- Rules on parental notification vary by state



# Organ Donation

- Brain dead patients are possible organ donors
- Organ donation must be discussed only by individuals with specialized training
  - Conflict of interest for caregiver to request organ donation
  - Family may believe physician giving up to obtain organs
- **“Organ procurement organizations”**
- Often donation coordinator and attending physician

# Organ Donation

- In U.S., individuals assumed NOT to be donors
- Family consent generally required
- Organ donation cards
  - Indicate a preference not final choice
  - Usually not a reason to override family refusal to donate





# DNR

## Do Not Resuscitate

- Patient request to avoid resuscitative measures
- Meant to decline care in case of cardiac arrest
- No CPR
- No electrical shocks
- **Other therapies may still be given**
  - Includes ICU care, surgery etc.



# DNI

## Do Not Intubate

- Patient request to avoid mechanical ventilation
- Often given with DNR: “DNR/DNI”
- Other therapies may still be given





# Advance Care Planning

- Deciding about care **prior to incapacitation**
- Ideally done as outpatient with primary care physician
- Often done at admission to hospital

# Advance Care Planning

- Goal is to identify and document patient wishes
  - DNR/DNI status (“code status”)
  - Living will
  - Health Care Proxy
- Very important in patients with **chronic illness**
  - Cancer
  - Heart Failure
  - COPD

# Research

- **Research requires consent**
- All clinical research studies require informed consent
- Even if drug or therapy is FDA approved
- Even if drug or therapy has no known risks



# Research

- **Institutional Review Board (IRB)**
- Hospital and institutional committee
- Reviews and approves all research studies
- Ensures protection of human subjects
- Balances risks and benefits
- Ensures adequate informed consent

# Research

- **Prisoners**
  - Informed consent required as for non-prisoners
- **Financial disclosures**
  - Many companies sponsor research
  - Must inform patients of industry sponsorship



# Pregnancy

- Pregnant women **may decline treatment**
- Even if baby's health is impacted



# Documentation

- **Person performing procedure** should obtain and document patient's consent
  - Alternative: someone VERY familiar with procedure
- Often patient asked to sign form
- Act of signing not sufficient for informed consent
  - Patient must be fully informed by provider
  - Patient must have understanding
  - Legal cases have been won despite signed form

# Documentation

- **Telephone consent is valid**
  - Usually requires a “witness”
  - Provider and witness document phone consent





# Confidentiality

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# Confidentiality

- Healthcare information is “privileged and private”
- Providers have duty to respect patient privacy
- Disclosure of patient information should be limited

# HIPAA

Health Insurance Portability and Accountability Act of 1996

- Sets national standards for protecting confidentiality
- Identifies protected health information



# Confidentiality

- Information disclosed **only with patient permission**
- Includes patient's spouse and children
  - Need patient's permission
- Includes other physicians
  - Must obtain release of information first
- Includes government authorities
  - Unless a court order is issued
- Limited exceptions

# Confidentiality

## Limited Exceptions

- May tell family a patient's location in ER/hospital
  - “Directory information”
  - Patient location in the facility, general health condition
  - No specific medical information
  - Disclosed if provider deems in **patient's best interest**



# Confidentiality

## Limited Exceptions

- May break confidentiality when **potential for harm**
  - Think: If 3<sup>rd</sup> party not warned, what will happen?
  - If definite harm → answer is usually to inform

# Tarasoff Case

- *Tarasoff v. Regents of the University of California (1976)*
- Tatiana Tarasoff killed by ex-boyfriend
- Ex-boyfriend treated by psychiatrist at university
- Boyfriend stated intent to kill to psychiatrist
- Authorities notified but not Tarasoff



# Duty to Warn and Protect

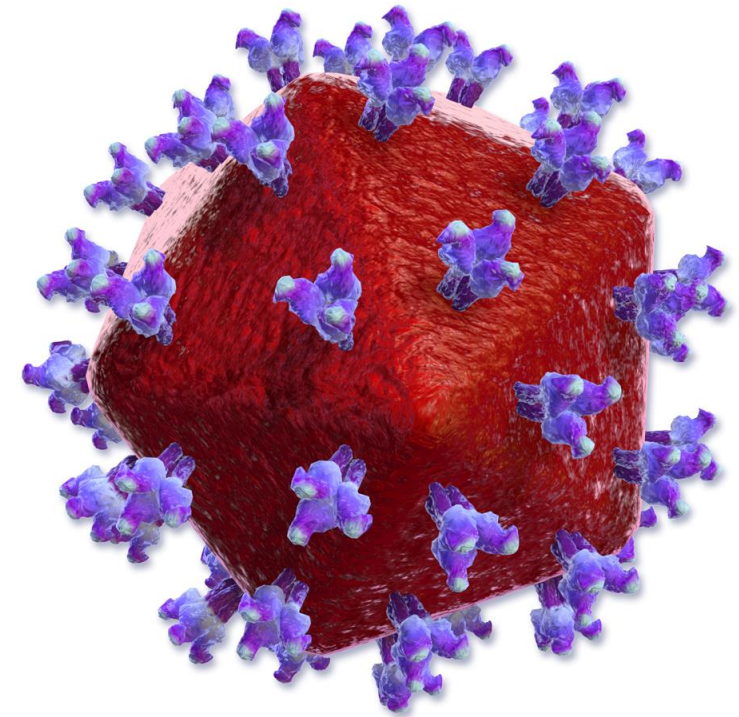
- Psychiatric patient intending **harm** to self/others
  - Suicidal patients
  - Homicidal patients
- Partners of patients with STIs



# STIs

## Sexually Transmitted Infections

- Duty to protect/warn **partners** of patients
  - **Partners of HIV+ patients**
  - Partners of patients with other STIs
- Only applies to sexual partners
- Does not apply to other individuals
  - Co-workers
  - Students of a teacher
  - Patients of a physician



**Human Immunodeficiency Virus (HIV)**

# STIs

## Sexually Transmitted Diseases

- Physician **may disclose STI status to partners**
- May do so without consent in special cases:
  - Reasonable effort to encourage patient to voluntarily disclose
  - Reasonable belief patient will not disclose information
  - Disclosure is necessary to protect health of partner
- Always **encourage patient to disclose first**
- Some states have partner referral services

# Reportable Illnesses

- U.S. states mandate certain “reportable diseases”
  - Prevent infectious disease outbreaks
  - Most micro labs have protocols to automatically report
- Tuberculosis
- Syphilis
- Gonorrhea
- Childhood diseases (measles, mumps)
- Many other diseases that vary by state

# Abuse

- **Child and elder abuse** must be reported
  - Child abuse: Reporting mandatory in all U.S. states
  - Elder abuse: Reporting mandatory in most U.S. states
- Child protective services
- Adult protective services
- Usually history of repeated/suspicious injuries
- First step: child/adult **interviewed alone**
- Physician protected if reporting proves incorrect

# Elder Abuse

- Occurs in older patients
- Physical abuse: pain or unnecessary restraint
- Sexual abuse: nonconsensual sexual contact
- Neglect or abandonment: failure to provide for needs
- **Psychological abuse**: infliction of emotional harm
  - Verbal insults or harassment
  - May present as **depression or withdrawal**
- **Financial exploitation**:
  - Nonconsensual use of financial resources



# Elder Abuse

- Reporting **mandatory** in most U.S. states
- Patients with injuries may be **admitted to hospital**
  - Provides protection from further harm
  - Allows time for social services intervention



# Intimate Partner Violence

- Psychological, physical or sexual harm
- By a current or former partner or spouse
- Suggested by multiple, recurrent injuries and accidents
- Primary concern is safety of victim
  - Provider should be **supportive**
  - May be a difficult topic of discussion
  - Ask if patient feels safe at home
  - Ensure patient has a **safe place in emergency**
- Reporting only required in some US states

# Intimate Partner Violence

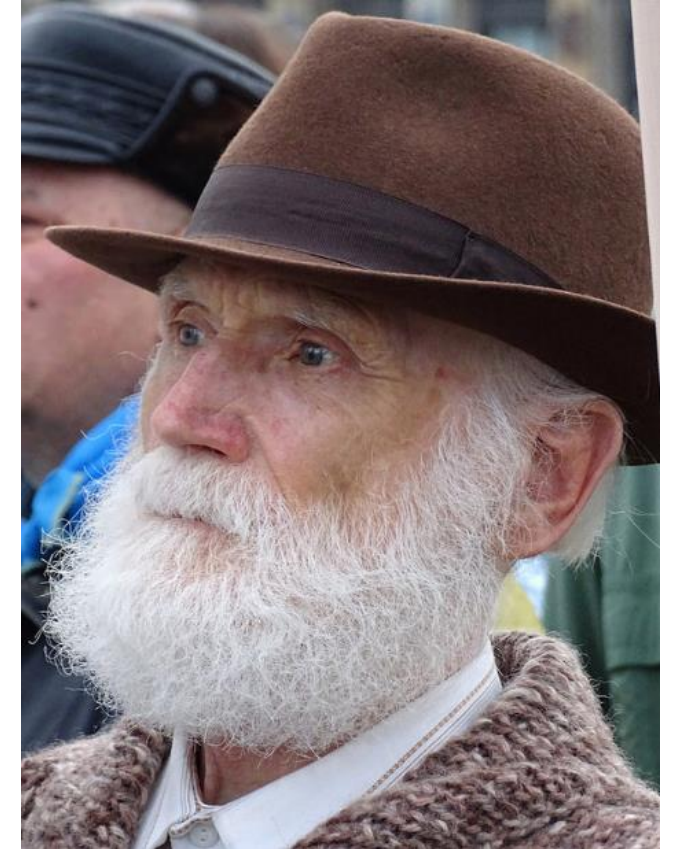
## Interviewing Patients

- Physician should be **nonjudgmental** and **compassionate**
- Physician uses open-ended questioning
- Questioning conducted in **private**
  - Ask others to leave for interview and exam
  - If others won't leave: clue to possible IPV
- Physician should **assure confidentiality**
  - Unless grave danger exists which may mandate reporting



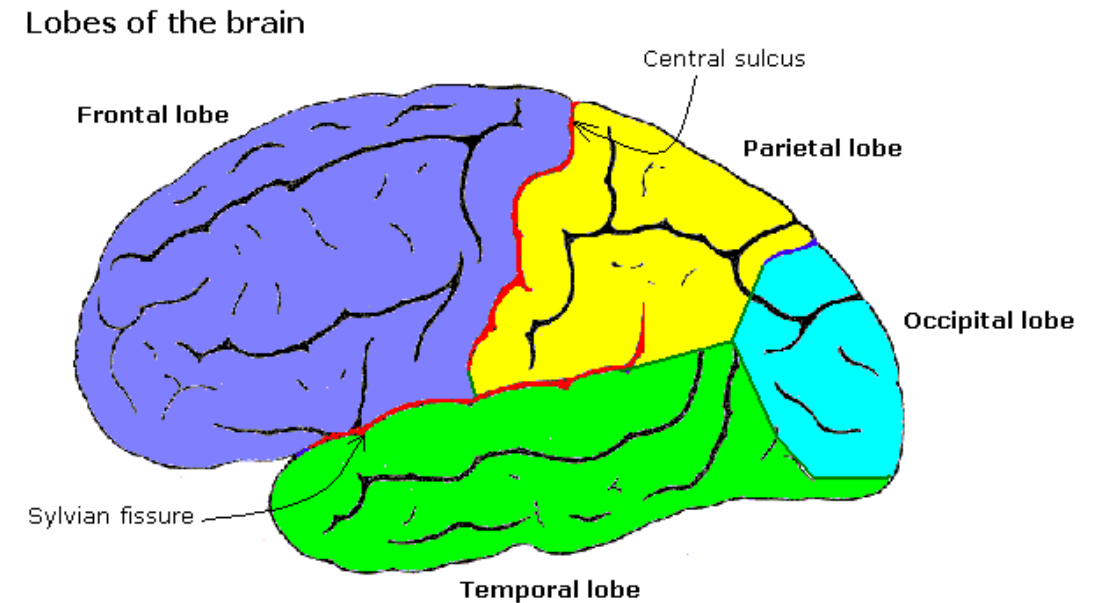
# Driving

- Physicians often encounter “impaired drivers”
- Often elderly patients with vision, mobility disorders
- No uniform standard for reporting
- Widely varying rules by U.S. state
- Best answer often to **discuss with patient/family**



# Driving

- Exception: **seizures**
- Most states require a seizure-free interval
  - i.e., 6 months, 1 year
- Often involves consulting with state DMV



# Decision-Making Capacity

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# Decision-Making Capacity

- Ability to comprehend information about illness and treatment options
- Ability to make choices in keeping with personal values
- Usually used regarding a specific choice
  - Example: patient has capacity to consent to surgery
- Required for informed consent
- Key component of ethical principle of autonomy

# Competency

- **Legal judgment**
- Different from decision-making capacity
- Determined by a court/judge
- Clinicians can determine decision-making capacity



# Decision-Making Capacity

- Understanding
  - Patient understands disease and therapy
- Expression of a choice
  - Patient clearly communicates yes or no
- Appreciation of facts
  - Related to understanding
  - Patient understands how disease/therapy affects him/her
- Reasoning
  - Compare options
  - Understand consequences of a choice

# Decision-Making Capacity

- Patient is at least 18 years old or legally emancipated
- Decision remains stable over time
- Decision not clouded by a mood disorder
  - Suicidal patients may not decline hospitalization
- No altered mental status
  - Intoxication
  - Delirium
  - Psychosis
  - Depression



# Decision-Making Capacity

- Can vary over time
- Illness may cause transient loss of decision-making capacity
  - Delirium
  - Untreated psychiatric illness





# Intellectual Disability

- Patients with Down syndrome, Fragile X
- Does not automatically preclude decision making
- Disabled patient must meet usual requirements
  - Understanding
  - Expression of a choice
  - Appreciation of facts
  - Reasoning

# Leaving AMA

## Against Medical Advice

- **Assess decision-making capacity**
  - Patient must understand treatment options
  - Must understand consequences of decision
- **Give options for resuming care**
  - Can offer alternative treatment (e.g., outpatient meds)
  - Offer to resume care if patient desires
  - Offer follow-up care

# Patients Who Lack Decision-Making Capacity

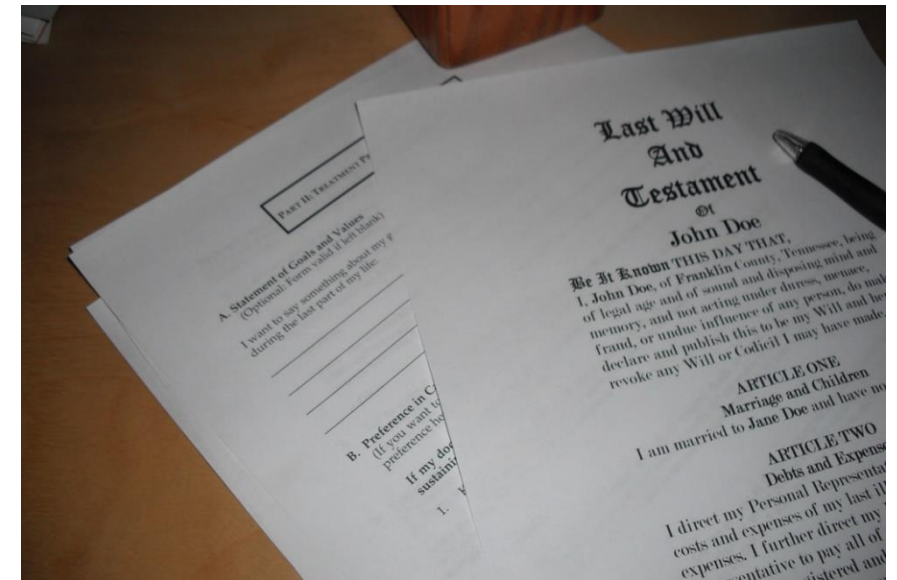
- Advance directives
- Surrogates

# Advance Directives

- Instructions by patient in case of loss of capacity
- Two main types:
  - Living Will
  - Durable Power of Attorney for Health Care

# Living Will

- Document of patient preferences for medical care
- Takes effect if patient terminally ill and incapacitated
- Usually addresses life support and critical care
- Often directs withholding of heroic measures



# DPAHC

## Durable Power of Attorney for Health Care

- Also called a Health Care Proxy
- Signed legal document
- Authorizes **surrogate** to make medical decisions
- Surrogate should follow patient's wishes
- Answer question: "What would patient want?"

# Absence of Advance Directive

- Some states recognize **oral or spoken statements**
- Reliable, repeated statements by patient about wishes
- Usually must be witnessed by several people



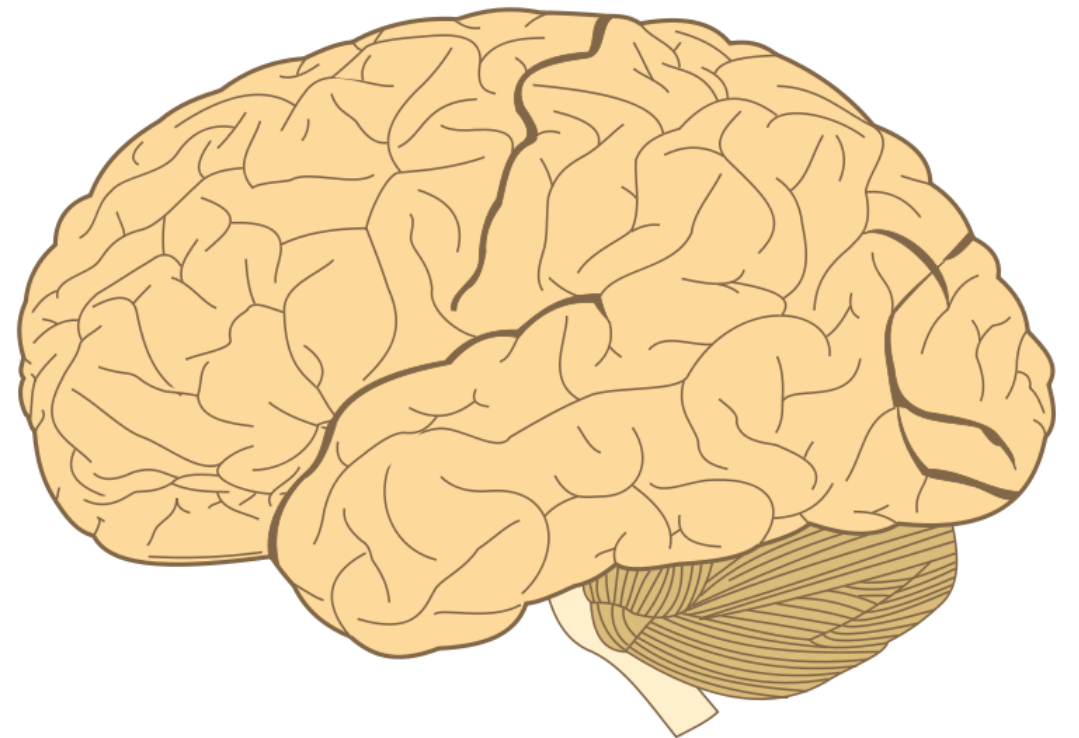
# Surrogate Designation

- Used when no advance directives available
- Make decisions when patient loses capacity
- Determine what patient would have wanted
- If no power of attorney:
  - **#1: Spouse**
  - #2 Adult children
  - #3: Parents
  - #4: Adult siblings
  - #5: Other relatives



# Brain Death

- Permanent absence of brain functions
- Brain death = **legally dead** in the United States
- Life support may be withdrawn
- Even over surrogate or family objections



# Public Health

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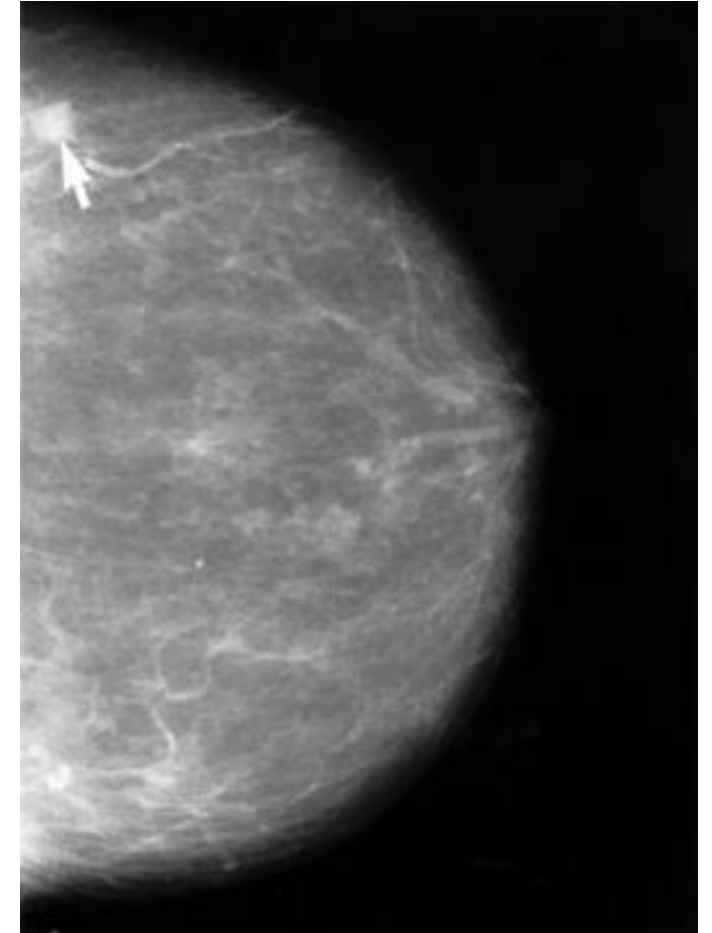
# Primary Prevention

- **Prevents disease** from occurring
- Immunizations
- Folate supplementation in pregnancy



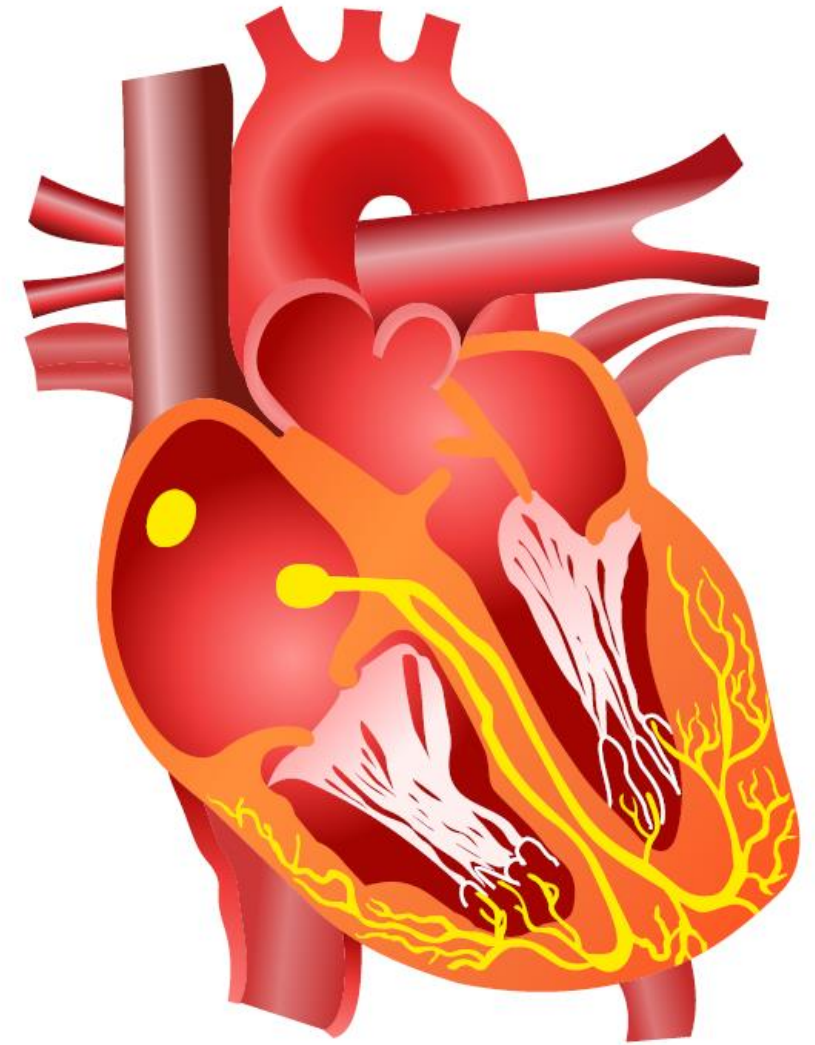
# Secondary Prevention

- **Prevent disability**
- Detect and treat early, ideally when asymptomatic
- Most **screening** programs
- Mammograms
- Pap smears
- Colonoscopy



# Tertiary Prevention

- Prevents long-term disease complications
- **Maximize remaining function**
- Cardiac or stroke rehabilitation programs
- Support groups
- Chronic disease management



# Quaternary Prevention

- Prevents **overtreatment** or harm from treatment
- Many examples of overuse in U.S. medicine
  - Blood tests
  - Radiology tests
  - Coronary procedures
- Ensure appropriate use

# U.S. Healthcare

- Healthcare is expensive (\$\$\$)
- Few patients pay out of pocket
- Major insurance options:
  - Medicare
  - Medicaid
  - Private insurance





# Emergency Care

- Must always be provided regardless of insurance
- After patient stable, insurance can be discussed





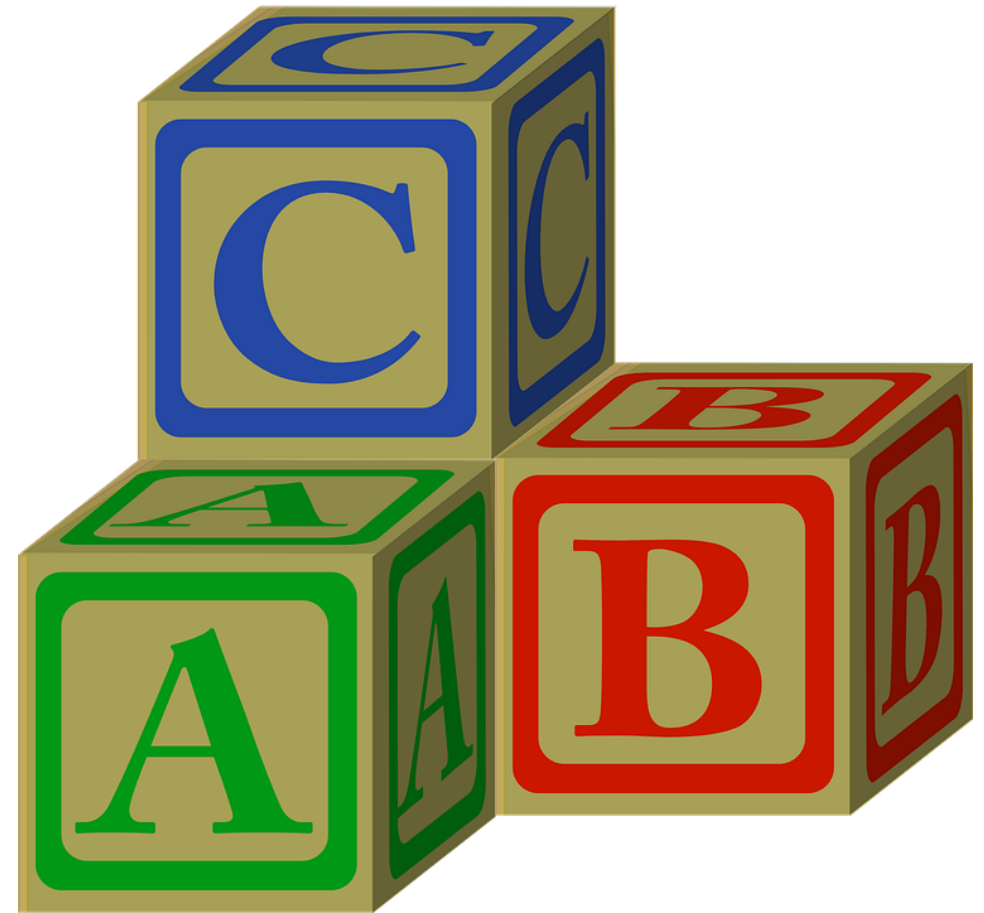
# Medicare

- **Federal program** administered by US government
- Paid for by Federal U.S. taxes
- Provides health insurance for:
  - Patients over 65 years of age
  - Disabled
  - Patients on dialysis



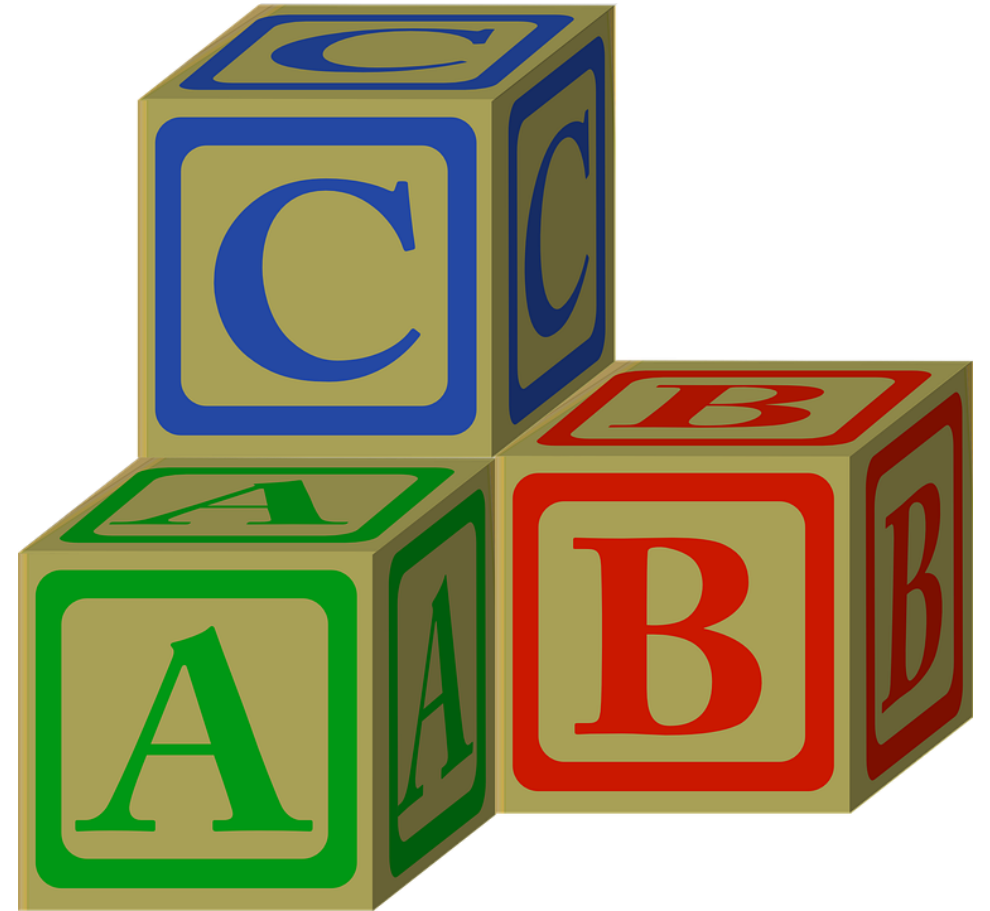
# Medicare

- Part A
  - Hospital payments
- Part B
  - Outpatient treatment
  - Clinic visits, diagnostic testing
- Part D
  - Prescription drug coverage



# Medicare

- Part C
  - Special option that patients may select
  - Pays private insurer to provides healthcare



# Medicaid

- Jointly funded by state and federal governments
  - Some \$\$ from Federal government
  - Some \$\$ from State governments
- Administered by states
- Health insurance for **low-income patients/families**



# Private Insurance

- Often provided by **patient's employer**
  - Employer pays fee to insurance company
  - Insurance company pays costs of medical care
- Expensive for employer
- Helps to attract skilled workers
- Several types of plans that vary in features/cost
  - Health Maintenance Organization (HMO)
  - Preferred Provider Organization (PPO)
  - Point of Service plan (POS)

# Private Insurance

- **Health Maintenance Organization (HMO)**
  - Insurance companies hires providers
  - Must use HMO providers - limited choice of physicians
  - Less expensive



# Private Insurance

- **Preferred Provider Organization (PPO)**
  - Patient may see any physician
  - “In network” physicians have a lower co-pay
  - Most expensive plan
  - Most flexible plan

# Private Insurance

- **Point of Service plan (POS)**
  - Middle option between HMO and PPO
  - “Gatekeeper model”
  - Patient must choose POS plan primary care doctor
  - Visits with other physicians require referral
  - In network and out of network visits with differing co-pays



# Payment Types

- Fee for service
  - \$100 per clinic visit
- Salary
  - \$100,000 per year → doctor must see all patients
- Capitation
  - **Set fee** paid to physician/hospital per patient/illness
  - Spends LESS than fee → make money
  - Spends MORE than → loses money
  - Financial risk transferred to physician/hospital



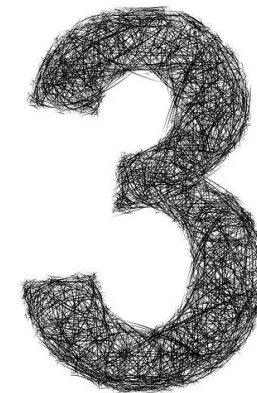
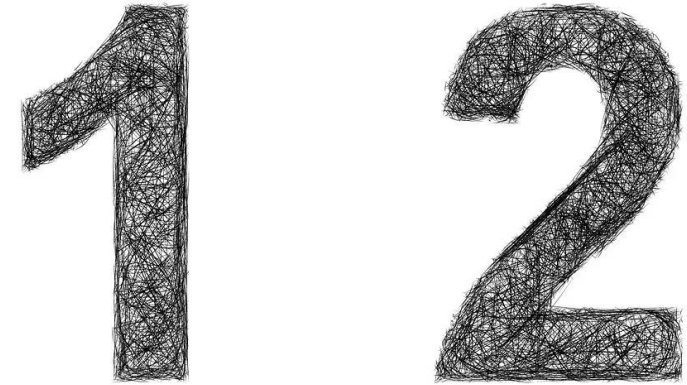
# Affordable Care Act

- Enacted in 2010
- Expands Medicaid coverage
- Establishes exchanges
- Uninsured patients may purchase private healthcare

# Triple Aim

Institute for Healthcare Improvement

- Improve the patient's experience of care
- Improving the health of populations
- Reducing the per capita cost of health care



# Accountable Care Organization

- Groups of health-care practitioners (e.g., physicians, nurses)
- Voluntarily join together to receive payments from third-party payers
- Groups are held “accountable”
- Agree to payments based on **quality metrics**
- Higher payments if high percentage of patients receive vaccinations
- Higher payments if high percentage of diabetic patients receive eye exams

# Patient-Centered Medical Home

- Team of care providers – doctors, nurses, social workers, pharmacists
- Provide coordinated care for patients and families
- Easily accessible
- Committed to quality and safety



# Palliative Care

- Specialized medical care for patients with serious illnesses
  - Cancer, CHF, COPD, dementia, CVA
- Focus on **improving quality of life**
- Can be provided alongside curative medical treatments aimed at life prolongation
- Symptom management focus: pain, nausea, vomiting, anxiety, stress
- Often a team approach: physician, nurse, social worker, others
- Primary palliative care = provided by the patient's regular doctors
- Secondary palliative care = provided by specialists in palliative care
  - Often fellowship trained and/or board certified in hospice and palliative medicine

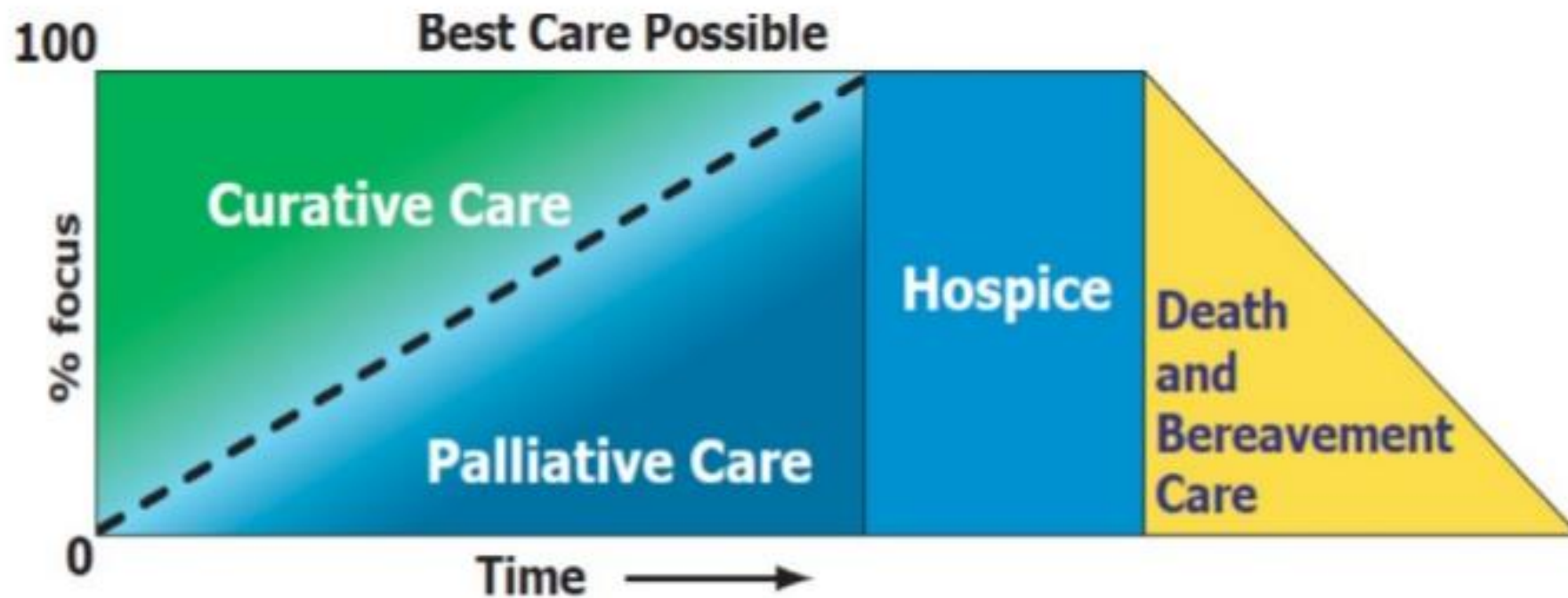


# Hospice

- Subset of palliative care at end of life
- Services provided at home or in a facility
- Requires **expected survival  $\leq$  6 months**



# Palliative Care and Hospice





# Quality

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# Quality

- **Institute of Medicine** definition: “the degree to which health care services for individuals and populations increase the likelihood of desired health outcomes and are consistent with current professional knowledge”



# Quality

## IOM Domains

- **Effectiveness:** achieving outcomes supported by scientific evidence
- **Efficiency:** maximizing quality of care delivered
- **Equity:** providing care of equal quality to all
- **Patient centeredness:** meeting patient needs and preferences
- **Safety:** avoids actual or potential bodily harm
- **Timeliness:** minimizing delays

# Quality Measurements

## Process versus Outcome

- **Process measurement**
  - Rates of immunization
  - Rates of DVT prophylaxis
- **Outcome measurement**
  - Rates of infection
  - Rates of DVT
  - Mortality



# Quality Measurements

## Common Hospital Metrics

- Readmissions
- Pressure ulcers
- Surgical-site infections
- Central-line infections
- Ventilator-acquired pneumonia
- Deep vein thrombosis

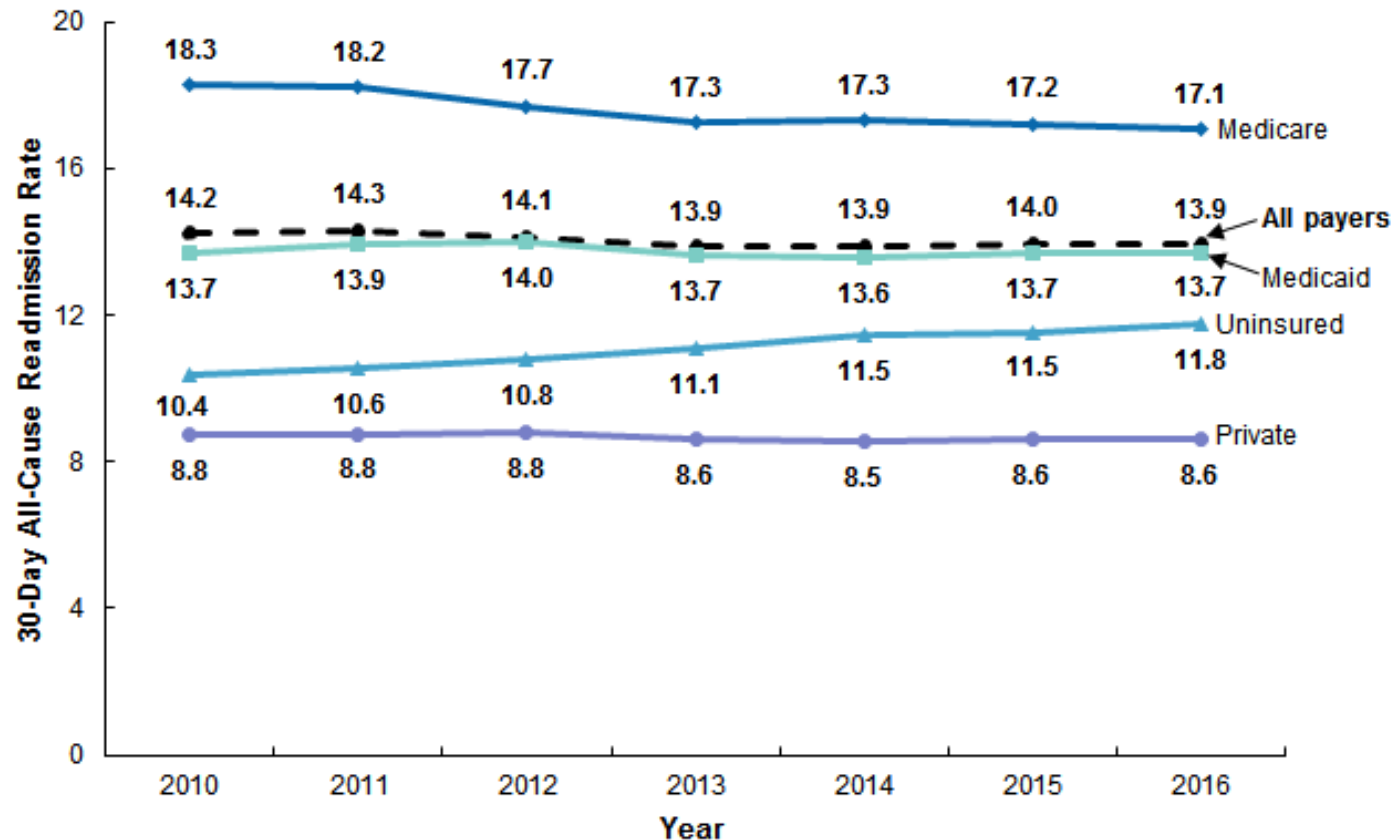
# Hospital Readmission

- Patient X discharged from hospital
- Ten days later, patient X admitted again
- Readmission rate used as a quality indicator
- High readmission rate may be due to:
  - Patient discharged too early
  - Patient not educated prior to discharge
  - Follow-up not scheduled



Wikipedia/Public Domain

# Hospital Readmission



# Hospital Readmission

## 30-day All-Cause Hospital Readmissions Most Common Conditions

Medicare	Medicaid	Private Insurance	Uninsured
Heart Failure	Mood Disorders	Chemotherapy	Mood Disorders
Sepsis	Schizophrenia	Mood Disorders	Alcoholism
Pneumonia	Diabetes	Surgical Complications	Diabetes

Healthcare Cost and Utilization Project. **Conditions With the Largest Number of Adult Hospital Readmissions by Payer.** April 2014



# Hospital Readmission

## Prevention

- **Discharge planning**
  - Clear, understandable instructions for patient
  - Post-discharge services
  - Follow-up appointments
- Medication reconciliation
  - Review all discontinued and new medications
  - Ensure prescriptions given and can be picked up
- Discharge checklist
- Post-discharge phone calls
- Home visits



# Hospital Readmission

## Team Approach

- Case manager – care coordinator
  - Works with insurance companies, home nursing agencies, etc.
- Physical and occupational therapist
  - Physical therapy: movement and strength
  - Occupational therapy: activities of daily living
- Social worker – helps patient and families
  - Education, coordination
  - Psychosocial issues
- Nurse
- Physician

# Teach Back Method

- Instructions given to patient
- Patient asked to “teach back” using their own words
- Commonly used method for discharge instructions
- May uncover misunderstandings



# Pressure Ulcers

- Immobile hospitalized patient: ↑ risk skin breakdown
- Can lead to pressure ulcers (usually sacral)
- Causes pain, risk of infection
- Preventative measures
  - Daily skin checks
  - Special mattresses to redistribute pressure
  - Early identification and care for skin breakdown





# Surgical Site Infections

- Post-surgical infection
- Often superficial skin infection (cellulitis)
- Can also be deep tissue or organ infection
- Can result from poor sterile technique
- Pre-operative antibiotics in appropriate patients



# Central Line Infections

- Central line insertion can lead to bacteremia
- Can occur due to poor sterile technique
- Gram-positive skin organisms most common
- Staph epidermis and staphylococcus aureus
- More common with catheters in **femoral vein**
- Least common with catheters in **subclavian vein**
- Internal jugular vein intermediate risk
- Increased risk with prolonged insertion



# VAP

## Ventilator-acquired Pneumonia

- Pneumonia after patient placed on ventilator
- May be due to hospital factors
  - Failure to elevate head of bed
  - Poor oral care in intubated patients



# DVT

## Deep Vein Thrombosis

- Immobile, bed-bound patients = ↑ risk thrombus
- Hospitals can use preventative measures
- ↑ rates of DVT may be due to poor hospital practices
- Methods of prevention:
  - Early ambulation
  - Intermittent pneumatic compression
  - Subcutaneous heparin
  - Low-molecular-weight heparin (Enoxaparin)



# Physician Quality Measurements

- Diabetic patients
  - Foot exams
  - Eye exams
- Systolic heart failure patients
  - ACE inhibitors
- Immunizations



# Safety

Jason Ryan, MD, MPH



# Operating Room Safety

## Types of Errors

- **Action-based errors**
  - Needle inserted into wrong blood vessel
  - Avoided by practice and standardized techniques
- **Decision-based errors**
  - Knowledge-based or judgement errors
- **Communication-based errors**
  - Avoided by preoperative briefing of team



# Never Events

- Events that should never happen – no exceptions
- Some examples:
  - Surgery on the wrong site
  - Surgery on the wrong patient
  - Wrong surgical procedure performed
  - Foreign object left inside patient during surgery
  - Administration of incompatible blood



# Wrong Site Surgery

## Prevention

- **Verification**
  - Of correct patient, site and procedure at all stages
  - When the procedure is scheduled
  - Entry in to operating room
  - Immediately prior to starting procedure
- **Marking**
  - Of operating sites
  - Ideally by operating surgeon
  - Ideally when patient is awake to confirm
  - Verified *independently* by each operator





# Operating Room Safety

## Time Out

- Pause before a medical/surgical procedure
- Patient, physician, nurses, staff all present
- All must agree on patient name, type of procedure
- Verify side, site, and other details
- All team members must agree to proceed



# Operating Room Safety

## Checklists

- Concept from airline industry
- Series of steps that must be done prior to procedure
- Shown to reduce many adverse events
  - Central-line infections
  - Surgical-site infections
- Used in operating rooms and other locations

Shown to reduce many adverse events



# Medication Errors

## Medication Reconciliation

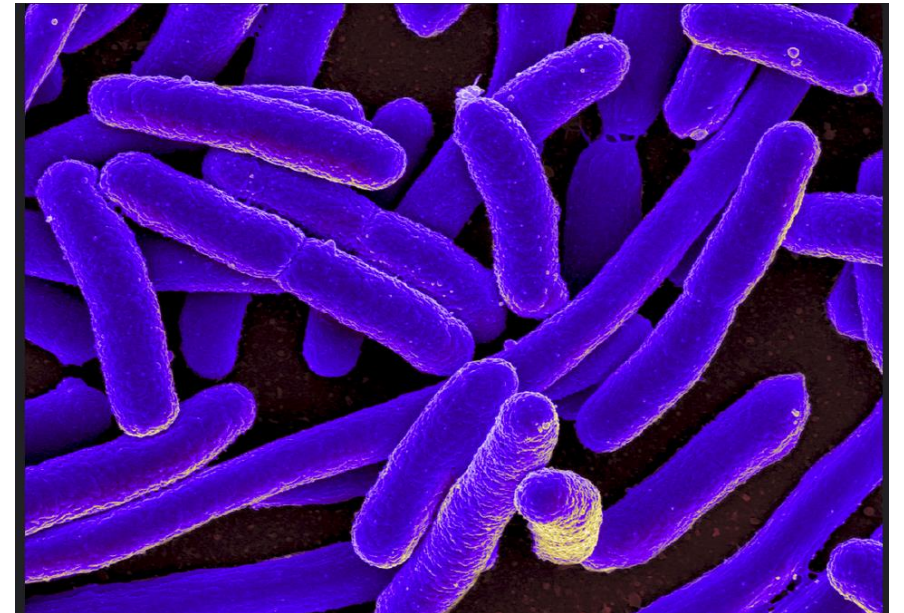
- Process of identifying most accurate list of meds
  - Name, dosage, frequency, route
- Often done at care transitions
  - Admission to hospital
  - Admission to nursing home





# Antimicrobial Stewardship

- Hospital program
- Monitors use of antibiotics
- Goals:
  - Prevent emergence of drug-resistant bacteria
  - Promote appropriate use of antibiotics
- Often monitors:
  - Prescribing patterns
  - Microbiology culture results and sensitivities



# Infection Control Precautions

- Patients with certain infections need “precautions”
- Taken to prevent spread of disease
- Four basic types of precautions:
  - Standard Precautions
  - Droplet Precautions
  - Contact Precautions
  - Airborne Precautions



# Standard Precautions

- Hand washing
- Gloves when touching blood, body fluids
- Surgical mask/face shield if chance of splash/spray
- Gown if skin or clothing exposed to blood/fluids



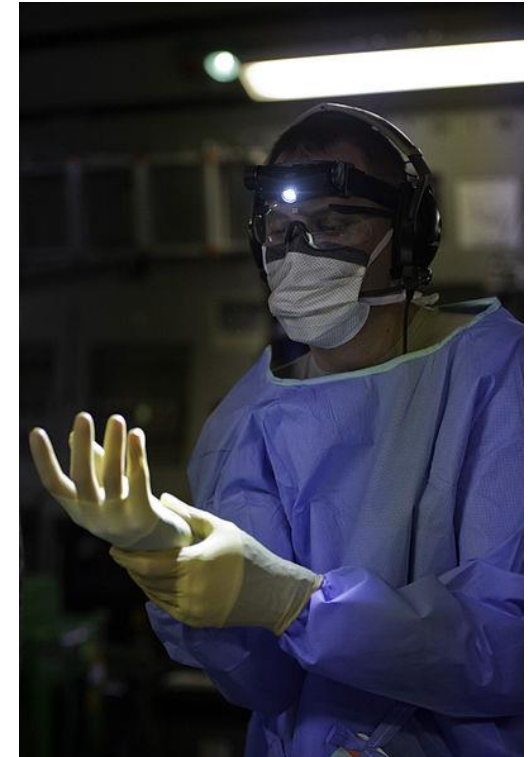
# Contact Precautions

- Patients with infections easily spread by contact
- Gloves, gown
- Key pathogens
  - Any infectious diarrhea (norovirus, rotavirus)
  - **C. difficile**
  - **MRSA**



# Droplet Precautions

- Patient with infection that spreads by large droplets ( $> 5\text{-}10\text{ }\mu\text{m}$ )
- Spread via speaking, sneezing, or coughing
- Facemask, gloves and gown
- Key pathogens:
  - Respiratory viruses, especially influenza, RSV
  - **Neisseria meningitides**





# Respiratory Precautions

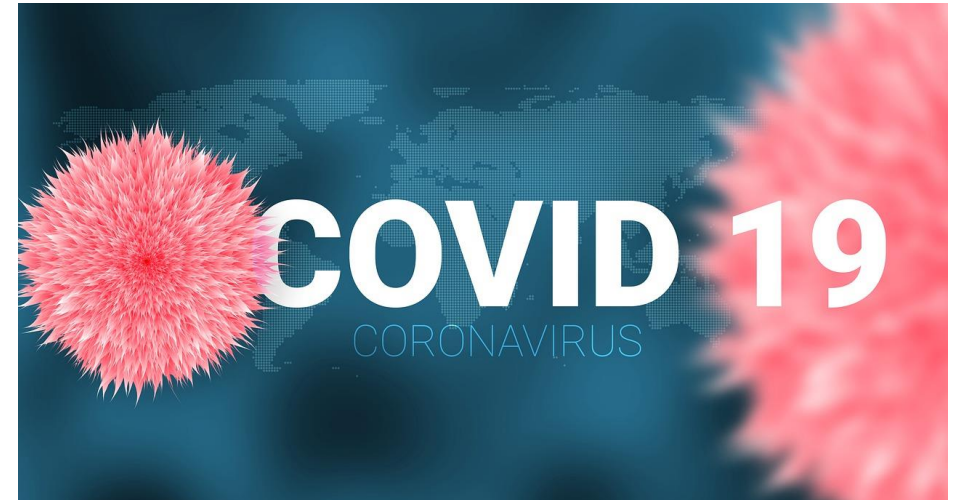
## Airborne/TB precautions

- Patients with infections spread by airborne route
- Particles  $< 5\mu\text{m}$  in diameter
- Fit tested mask or respirator
- Gloves, gown
- Key pathogens
  - **Tuberculosis**
  - Measles
  - Chickenpox



# COVID19

- Primarily spread via **contact and droplets**
- Possible spread via airborne route in certain medical procedures
- WHO: droplet and contact precautions in most circumstances
- Airborne precautions during aerosol generating procedures
  - Endotracheal intubation
  - Bronchoscopy
  - Open suctioning
  - Non-invasive positive-pressure ventilation
  - Cardiopulmonary resuscitation



# Root Cause Analysis

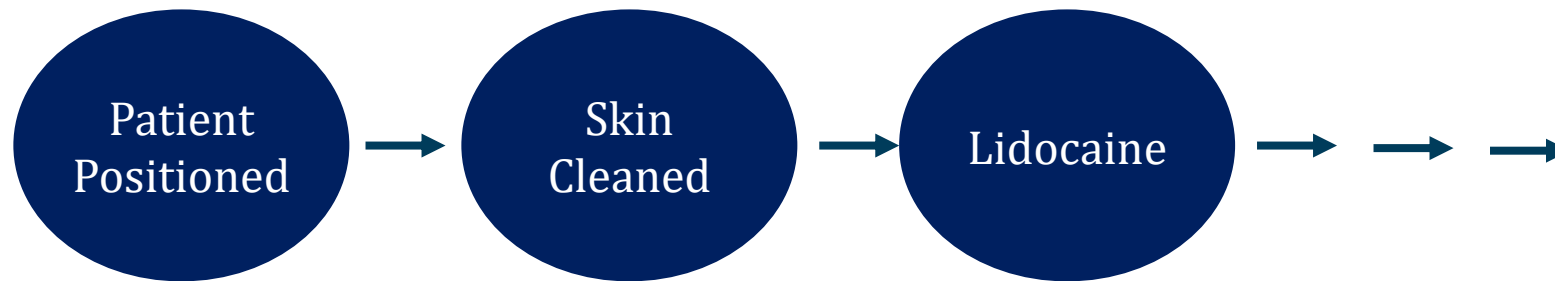
- Method to analyze serious adverse events (SAEs)
- Identifies direct cause of error plus contributors
- Example:
  - Wrong drug administered to patient
  - Physician error?
  - Nursing error?
  - Labels hard to read: Printing error?
  - Nurses rushed: Hospital error?





# Failure Mode & Effects Analysis

- Identifying how a process might fail
  - Root cause analysis done **BEFORE** adverse event happens
- Identifying effects of potential failure
- Break process down into components
- Look for failure/effect of each component



# Types of Errors

- **Active errors**
  - Occur at the end of a process
  - Frontline/bedside operator error
- **Latent errors**
  - Errors away from bedside that impact care
  - Example: poor staffing leads to overworked nurses



# Adverse Events

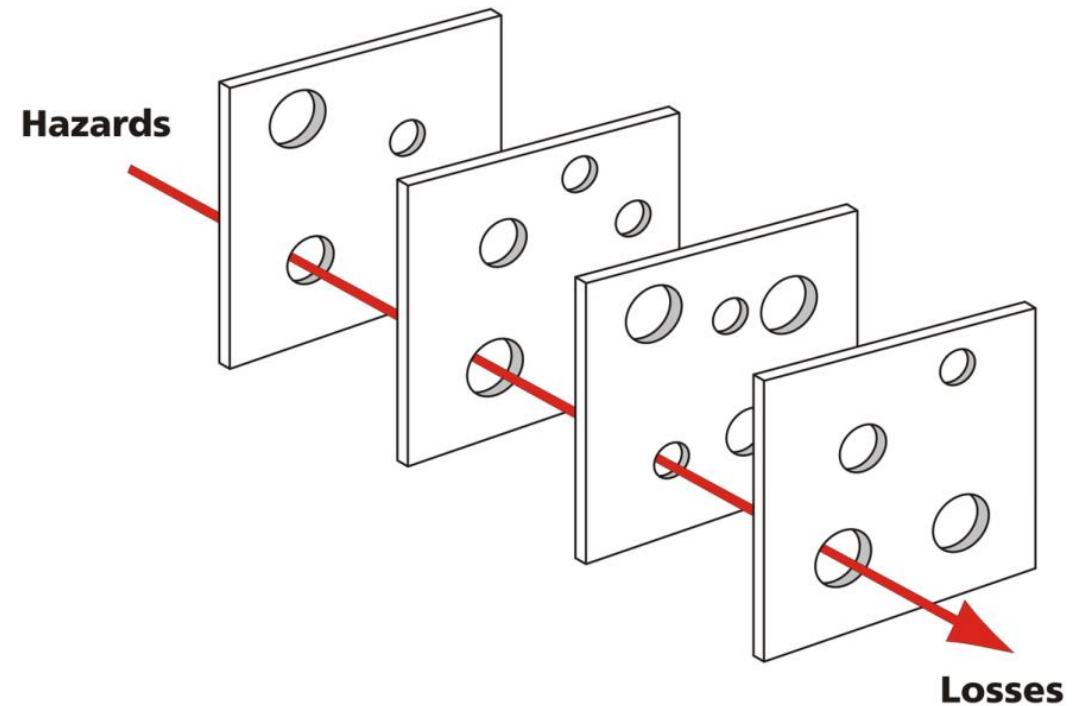
## Terminology

- Preventable
- Non-preventable
- Ameliorable
  - Not preventable but severity could have been reduced
- Near miss
  - Error committed but not harm occurred
- Commission error
  - Action caused harm
- Omission error
  - Failure to act caused harm



# Swiss Cheese Model

- Flaws at multiple levels align to cause serious errors
- Often more than just a single mistake
  - Institutional factors
  - Supervisor errors
  - Environmental factors
  - Individual error



# PDSA

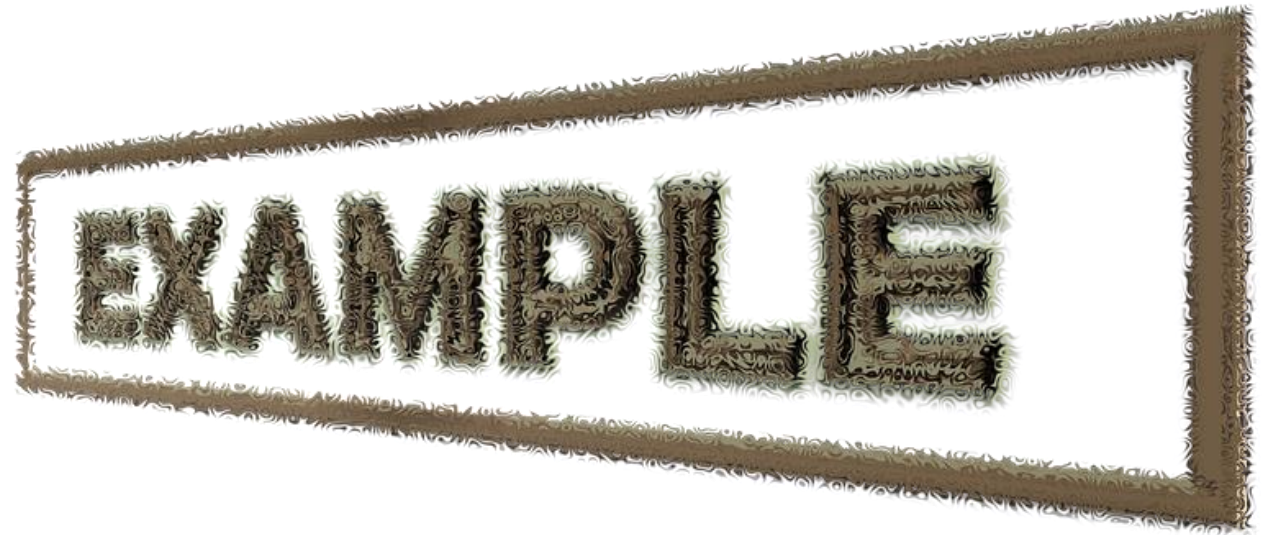
## Plan-Do-Study-Act

- **PLAN:** Plan a change in hospital practice
- **DO:** Do what you planned
- **STUDY:** Study the outcome. Did things get better?
- **ACT:** Act on the study findings
- PDSA “cycles” repeated
- Generates continuous improvement

# PDSA

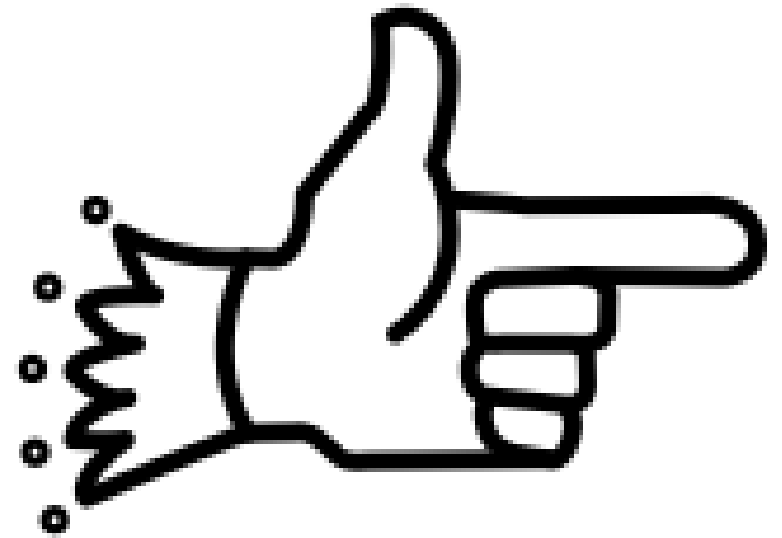
## Example

- Too many surgical site infections
- **Plan** to mandate double hand washing
- Implement plan (**Do**)
- **Study** effects on surgical site infections
- **Action** taken based on results



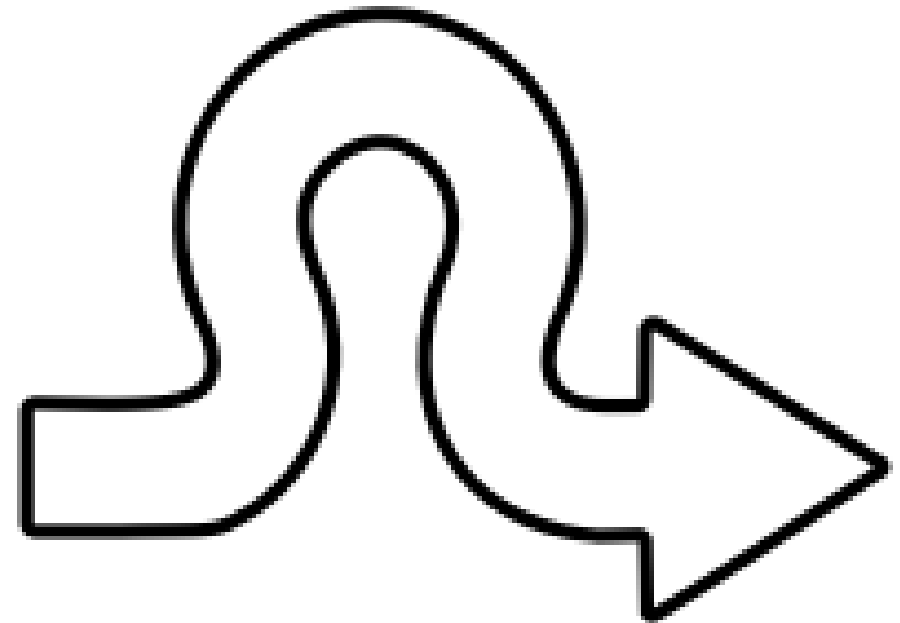
# Triggers and Rapid Response

- Patients that “crash” often have signs of impending decline hours before
- Triggers: Patient events that mandate response
  - New chest pain
  - Low oxygen saturation
- Rapid Response Team
  - Provider group
  - Responds to triggers with formal assessment



# Forcing Functions

- “Force” an action beneficial for safety
  - Cannot order meds until allergies verified
- **Workaround**
  - Obtain meds without using ordering system
  - Potential for harm





# Human Factors Design

- **Design of systems** that accounts for human factors
  - How humans work and function
  - How humans interact with system
- Failure to account for human nature → errors



# Human Factors Design

- Standardization
  - Same procedures followed throughout hospital
- Simplification
  - Fewer steps → less chance for error
- Forcing functions
  - Cannot only interact with system in one way



# Culture of Safety

- Safety as priority for organization
- Teamwork
- Openness and transparency
- Accountability
- **Non-punitive** responses to adverse events/errors
- Education and training

# High Reliability Organization

- Organizations that operate in hazardous conditions
  - High potential for error
- Fewer than average adverse events



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# Delivering Bad News

Jason Ryan, MD, MPH



# Bad News

## Serious News

- Information that alters a patient's view of his or her future
- Causes behavioral or emotional change that persists
- Varies based on patient belief and perception





# SPIKES Model

- Model for delivery of **bad news**
- Developed for patients with cancer
- Several society guidelines based on this model
- Other similar models also used
  - SHARE
  - ABCDE
  - GUIDE
  - BREAKS



# SPIKES Model

- **S**etting
- **P**erception
- **I**nvitation
- **K**nowledge
- **E**motions and **E**mpathy
- **S**trategy and **S**ummary





# Setting

- Create a quiet, comfortable setting
- Set aside adequate time
- **No interruptions**
  - Silence pagers or cell phones
- Patient may request friends/family
- Sometimes only family present (“Family meeting”)
- Introduce all team and family members
- Interpreter may be required



# Perception

- Start conversation by asking the patient **what they know already**
- Active listening: eye contact, open posture, leaning in
- “What is your understanding of your condition?”
- “What have your other doctors told you so far?”
- “What do you know about your CT scan?”

# Invitation

- How would the patient like the information disclosed?
- How much detail?



# Knowledge

- “Warning shot:” warn patient or family that serious news is coming
- “I have some difficult news to tell you about your biopsy”
- Use nontechnical words
- Avoid jargon
- Give information in small chunks
- Stop and check for understanding
- Can ask patient/family to repeat back information

# Be Clear

- Too often patients/families confused by physicians
- Good examples:
  - “I believe that your mom is dying”
  - “There is no cure for this condition”
- Bad examples:
  - “Her pulmonary situation is not improving”
  - “The cardiomyopathy has not improved”



# Emotions and Empathy

- Validate emotions as they arise
- Silence is okay



# Strategy and Summary

- Discuss the plan for next steps
- Summarize the discussion
- Check understanding
- Can ask patient to repeat back information





# Clinical Uncertainty

- Concerning findings (abnormal lab, unexplained weight loss)
- Possibility of serious disease or benign outcome
- Assess patient's understanding
- Review results in clear language
- **Clearly state the level of uncertainty**
  - Okay to emphasize that serious diagnosis may exist
  - Should also emphasize that nothing is definite
  - Do not need to list all potential diagnoses
- Recommend follow-up
- Solicit questions