



PACE PLANNING OF RADIOLOGY OPERATION IN THE FACE WITH COVID-19 PANDEMIC

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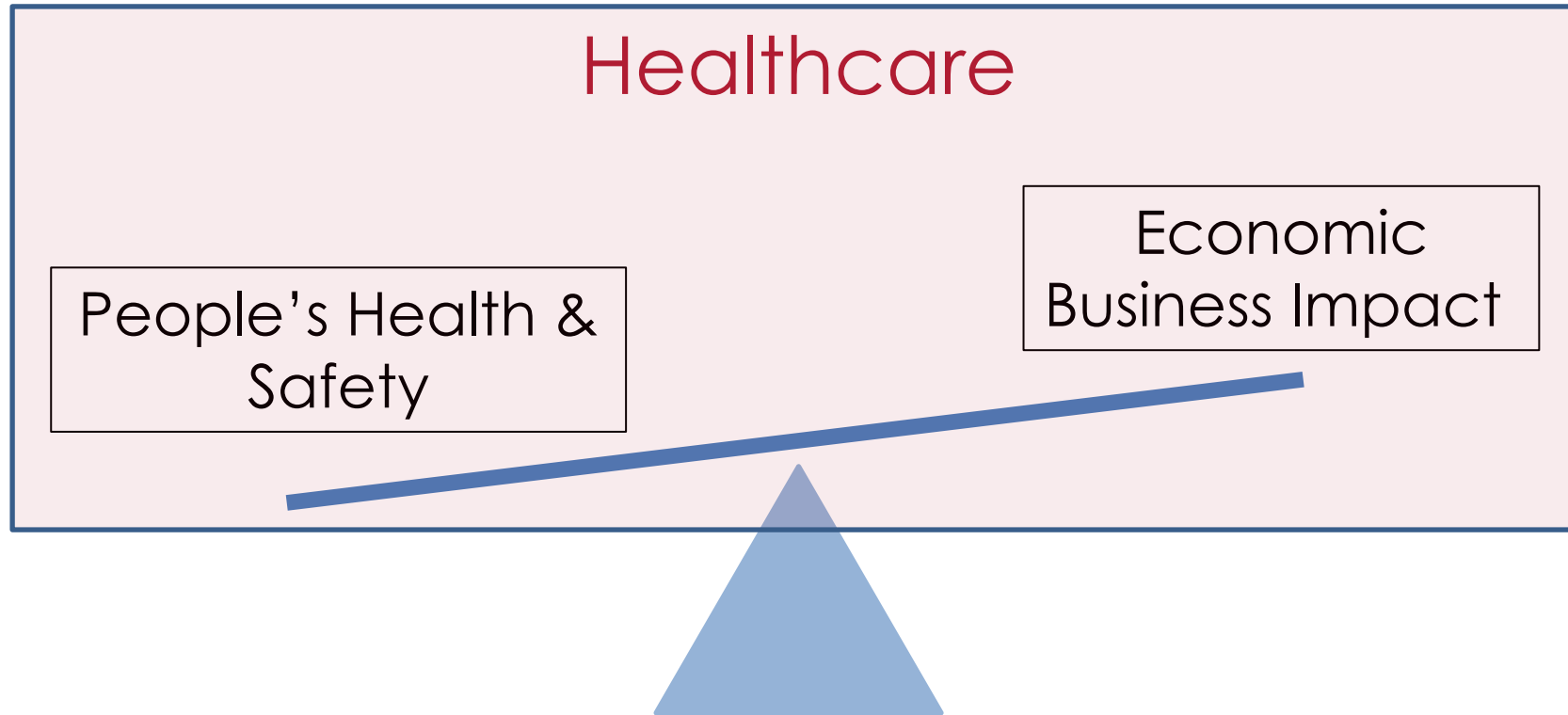
CHALLENGES OF COVID-19 PANDEMICS AND RADIOLOGY

- Unprecedented challenges to medical community
- Provide high quality of care while maintaining safety
- Safety for our patients, healthcare workers, and community
- Rapid changes in infection rate, hospital & ED capacity
- Agility to changes in clinical demands & PPE availability
- Effective communication in department and health system
- Innovative approach to mitigate infection risk among healthcare professionals

PURPOSE AND MATERIALS & METHODS

- Purpose: To create the process of COVID-19 preparedness to mitigate the risk of infection in healthcare professionals
- M&M: COVID-19 executive task force was created
- **PACE: Primary (new normal), Alternative (low risk), Contingency (moderate risk) and Emergency (high risk)**
- 3 goals: 1) Provide efficient and effective imaging services to both COVID and non-COVID patients, 2) Establish the highest safety of care, & 3) Create the work process that preserves PPE and other resources
- Principle: Agility, Alignment, and Patient-centeredness

REOPENING / RECOVERY – PRIORITY & BALANCE



RECOVERY – STAGED APPROACH

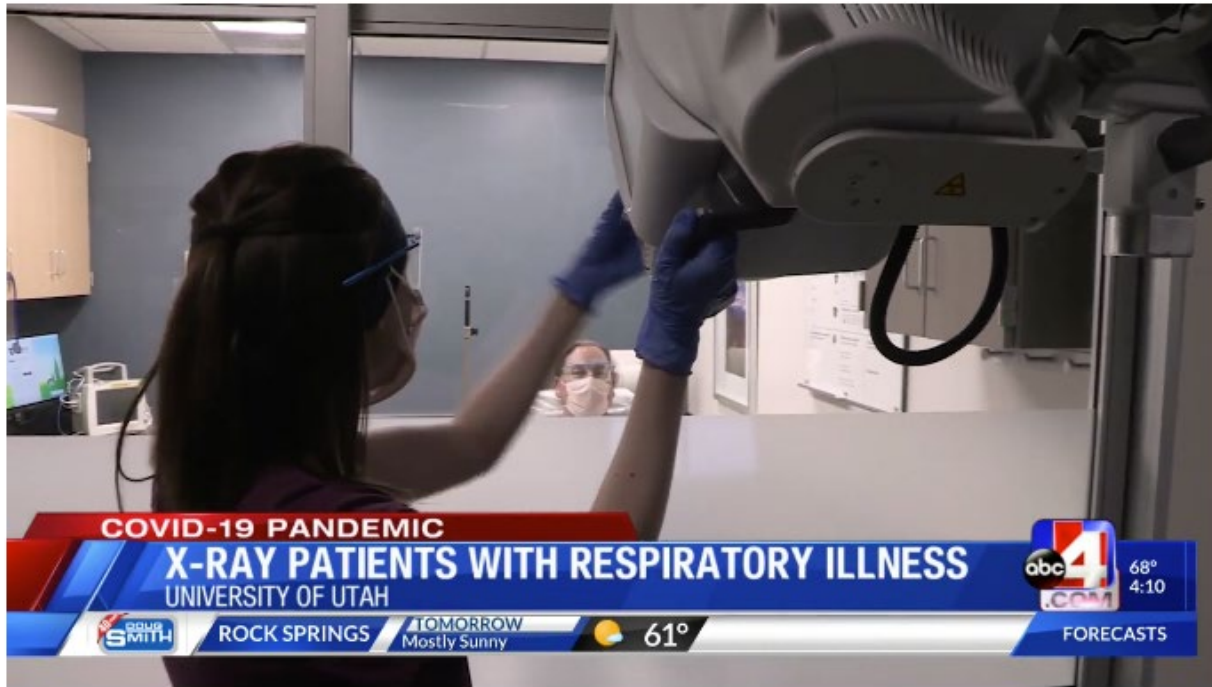
Radiology PACE planning

COVID 19- Radiology SURGE-RECOVER-PROSPER	GREEN (PRIMARY) New Normal	YELLOW (ALTERNATIVE) Low risk	ORANGE (CONTINGENCY) Moderate risk	RED (EMERGENCY) High risk
Imaging Services	Schedule and perform all imaging exams at all sites as the baseline. Normal exam time. Continue equipment cleaning and physical distancing practice	Perform all emergent & urgent imaging and all OP imaging at all sites. COVID+ pt and PUI at UUH. Spaced scheduling to allow physical distancing and room cleaning.	Perform all emergent & urgent imaging. Perform essential outpatient (OP) imaging. COVID+ pt and PUI at UUH. Consolidate non-COVID OP imaging to SJH, FMH, RWC. HCH reserved for cancer patients, if possible. Spaced scheduling to allow room cleaning and physical distancing	Perform only emergent & urgent imaging. Postpone all non-essential imaging. COVID+ pt and PUI at UUH. Continue imaging for cancer patients at HCH with overflow at SGH.
Interventional Radiology	Perform all urgent & emergent procedures as well as all elective procedures, Continue room cleaning and physical distancing practice, COVID testing for all invasive and AGP. All residents and students return to IR service.	Perform all urgent and emergent procedures as well as some elective procedures as needed. COVID test for invasive procedures and AGP. Allow all residents to return to IR service, The procedure volume is 95% of the baseline.	Continue to provide urgent & emergent cases. Anticipate increase in volume once other services slowly reopen. Schedule essential "elective" procedures. COVID test for all invasive procedures and AGP. The procedure volume is about 90% of the baseline. Some residents return to IR services.	Perform all urgent & emergent procedures. Cancer treatments and biopsies as usual. COVID test prior to invasive procedures. The volume of IR procedures have been about 80% of the baseline. Residents are not allowed to involve in the cases.

Not Switch on or off
Rather, Dial up and down



Radiologists say new technique preserves PPE



Portable chest radiograph for ICU patients through the window



Safety Measures on patient waiting room

ADJUSTMENT – BEING AGILE AND FLEXIBLE

- Daily review of COVID-19 **positive patients** in the system
- Daily review of COVID-19 **testing** and its capacity
- Weekly review of diagnostic imaging / procedure **volumes**
- Monitoring **PPE** supplies, safety precautions

- Incorporate new institutional and state **policies**
- Weekly adjustment of physician **staffing** & trainee allocation
- **Online** lectures / tumor boards / conferences
- Deployment of Home PACS station

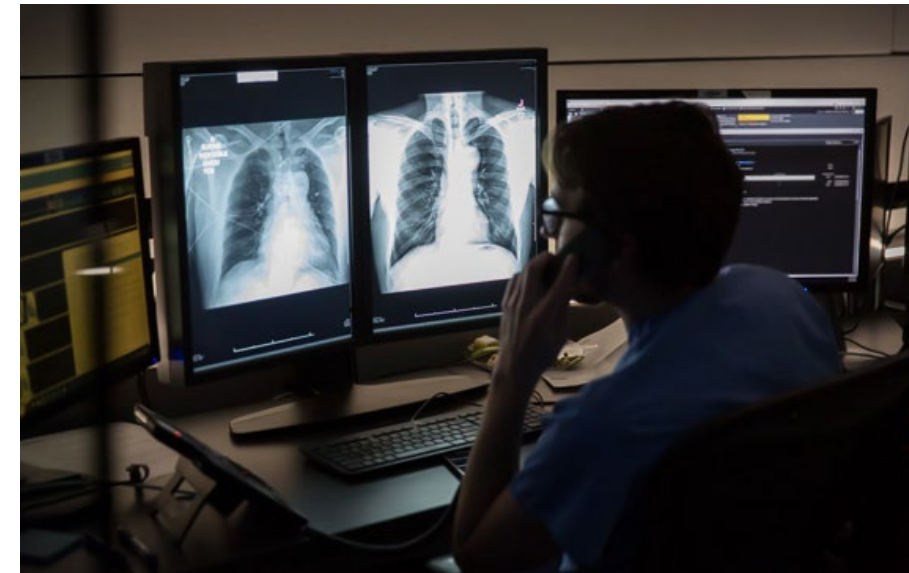
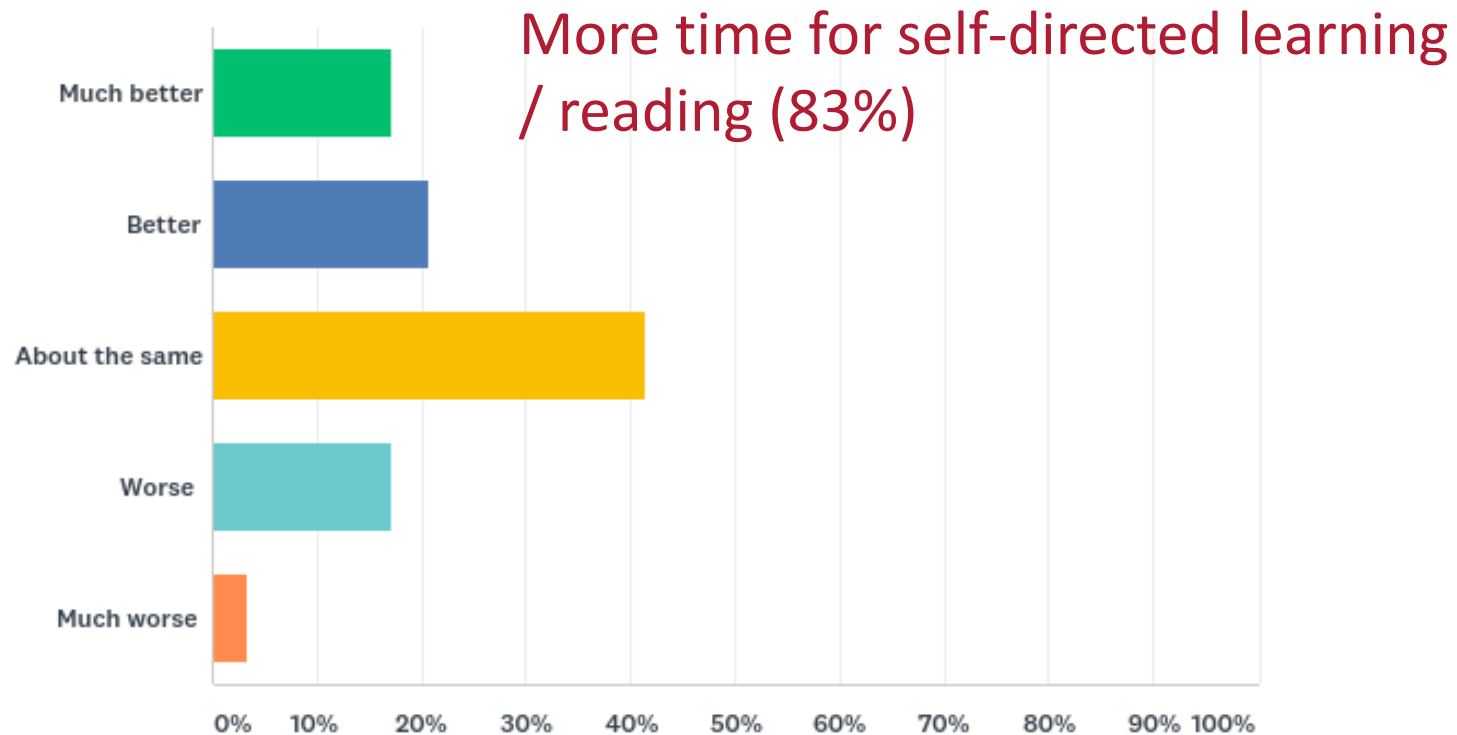
- Daily to weekly radiology COVID-19 **huddle** meeting
- Frequent wellness **check-in** with physician / staff / trainee
- **Innovations** – PPE 3D printing, ICU portable x-ray method, etc



3D printing by Dr. Edward Quigley

RESIDENT MORALE AND EDUCATION DURING COVID-19

How is your current personal morale compared to pre-COVID?



Remote readout with resident and attending
With physical distancing

WELLNESS AND PEER SUPPORT

Emotional Status

Uncertainty
Isolation
Anxiety
Fear

Interaction

Selflessness
Gentleness
Forgiveness
Gratefulness

CONCLUSION

- COVID-19 crisis is a long process with much uncertainty
- Institution needs to be prepared to “dial” up and down along the level of risk category (PACE)
- Alignment with strategic planning by the state – collaborative efforts with other health systems
- Clarifying the planning process, regularly updating the information => Agile, Adaptable, and Strategic
- Plans may or may not work, but the planning of the worst scenarios and preparing for it is indispensable