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Is there a silver lining for US health care from COVID-19 pandemic?

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The COVID-19 pandemic has had an impact on economy and health care system of every nation. United States has been the hardest hit country both with incidence and absolute mortality from COVID-19. In some of its states the health care system have been stretched to their limits. This has led to a rapid change in the health care practice due to newly approved emergency legislative bills, new state government laws, measures taken by institutions and practices as well as the changing consumer behavior. Some of these adaptations – in particular, the transition of patient care to virtual visits are revolutionary. Increased vigilance by health care organization and workers to minimize the spread of infection to others as well for personal protection may result in lasting behavioral change that will prevent hospital acquired or transmitted infections and may lead to reduced morbidity and mortality from the regular "flu". The recycling of personal protective equipment and the emerging research showing it a safe practice will reduce health care expenditure. It is quite possible that this pandemic may be the silver lining that will save the US health care from its unsustainable consumption of US gross domestic product.

The COVID-19 pandemic has stretched the US health care systems in some States to their limits and has had a major influence on the operations of every US health care system — academic or non-academic, small or large, public or private.

Elective outpatient procedures came to a grinding halt, outpatient visits were drastically reduced, cross training is being provided to physicians and allied health staff to meet the potential Covid-19 patient surge and its downstream impact on patient care. In "hot spots" physicians are being forced to prioritize intensive unit care to patients most likely to recover.

In response to Covid-19 emergency, the U.S healthcare system is implementing measures that would have otherwise taken years to pass and enforce. New Department of Health and Human Services (DHHS) and the Centers for Medicare & Medicaid Services (CMS), Medicare bill) allows reimbursement for 80 additional services including virtual new and follow up visits for outpatients including those at nursing homes and hospice as well as emergency departments visits.[1] Policy changes also allow eliminating paperwork requirements allowing clinicians to spend more time with patients. The legal liability on physicians and allied health staff for cancellation or postponement of elective diagnostic tests and procedures has been significantly reduced, provided non gross error in judgement or neglect occurred. The American board has relaxed maintenance of certification (MOC) requirements for physicians without having an adverse effect on physicians' certification.[2]

Diagnostic testing has been curtailed to urgent or semi-urgent tests likely to change clinical management to minimize patient and medical staff exposure in both out-patient and in-patient settings.

Shortage of personal protective equipment (PPE) has led to recycling of masks and PPE for re-use. ICU rounds are being conducted only by necessary personnel to minimize staff and patient exposure and PPE use. In-patients are being provided e-consults or virtual consults. Medical in-patient room visits are limited to the essential ones only.

US health care expenditure is expected to rise to $2.9 trillion, or 9.7 percent of the economy by 2028.[3] Measures implemented during this current pandemic may lay a foundation for more efficient and value-based health care.

Efficient and professional healthcare delivery at minimum cost and convenience to the consumer is central to a value-based healthcare system. Virtual visits may not only reduce physician burden but also improve patients' satisfaction while at the same time reducing intermediary steps needed for the visits to happen. Lack of organized primary and general medical care in the US leads to seeking of non emergent medical care in the emergency rooms. In addition, the rampant practice of obtaining second opinion by multiple providers and institutions leads to repeat and unnecessary diagnostic testing. The use of universal EHR system allows retrieval of medical records and diagnostic test results between providers and centers and allows availability of adequate medical information at physicians' disposal to allow virtual visits on new patients. Additional tests can then be requested deemed appropriate. Public

1 https://www.medicareadvocacy.org/medicare-info/covid-19-coronavirus-and-medicare/

2 https://www.theabpm.org/2020/03/27/american-board-of-medical-specialties-statement-regarding-continuing-certification-during-covid-19/

3 https://www.crfb.org/papers/american-health-care-health-spending-and-federal-budget

education and training on measurement of their vital signs including heart rate, blood pressure and oxygen saturation along with the availability of several smart devices enabling collection of vital sign data can further facilitate outpatient virtual visits with the health care provider. Reduction in repetition of diagnostic testing with its associated expense and inconvenience, bypassing of transportation needs and the ability to see a physician from their home without the frustration of having to wait in the doctor's office will lead to improved patient's satisfaction

Physician burn out has become a major challenge in our increasingly complex health system. Implementation of EHR with its draconian documentation needs and 24-hour messaging service responsibility on providers, overloaded work schedules and the requirement for MOC credits leave little family and leisure time for physicians and allied staff. Some of the changes implemented in the pandemic may be drivers for reduced physician burn out and improved work engagement. The ability to do virtual visits from their office or even from home may also allow recruitment of older and retired physicians to boost our healthcare needs. Virtual visits may be particularly valuable for evaluation of nursing home patients who may be treatable at the nursing homes instead of requiring an ED visit. Use of artificial intelligence and smart devices may help create and record physician specific patient interviews making notes available to physicians immediately after consultations to edit and sign and thereby relieve another major source of physician burden and dissatisfaction.

On the inpatient side the ability to provide consultation in the ICUs via virtual visits may also be another novel way of reducing the burden on physicians and the health systems so that physicians can provide such consultations from out-patient or office settings. There is little a physician's stethoscope can do by lung auscultation when a CT chest is available or diagnose cardiac or valve dysfunction or pericardial effusion when an echocardiogram is available to provide accurate cardiac diagnosis.

The Covid-19 pandemic caused many physicians to be resourced outside of their subspecialty to provide care to the sick. Learning to use our basic medical knowledge and thereby reduce in-patient subspecialty consults can reduce in patient length of hospital stay and expenses. Many specialty consults are partially driven by legal ramifications of "potential diagnostic misses". To this end, temporary relief provided by CMS for medical malpractice law-suits on medical professionals will need to continue.

CDC indicate 35.5 and 45 million illnesses, 16.5 and 21 million medical visits, 490,561 and 810 hospitalizations and 34,200 and 61000 deaths occurred during the 2018-2019 and 2017-2018 influenza seasons respectively.[4,5] Continuation of social distancing during the regular "flu" season can reduce morbidity and mortality from flu, reduce patient health care utilization as well as reduce sick leaves among health care workers. Behavioral change from this pandemic has ingrained proper hand hygiene and if sustained can significantly reduce hospital acquired infections.

The ability of organization including American College of Cardiology to hold limited virtual annual scientific sessions in 2020 allowed national and international attendance. This has far-reaching implications after Covid-19 when global travel will likely become more restricted.

Virtual patient visits, cross training of specialties, prioritization of ICU care for those likely to have a meaningful life after recovery, avoiding repeat diagnostic testing, social distancing and hand washing particularly during the flue pandemic are valuable changes that we must continue for economic and value based health care with its satisfied customers and less burned out physicians.

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[4] https://www.cdc.gov/flu/about/burden/2018-2019.html#1

[5] Centers for Disease C, Prevention. FluView Interactive. https://www.cdc.gov/flu/weekly/fluviewinteractive.htm (accessed 10/9/2019 2019).