Covid-19 & Supportive Care

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Chief Scientific Officer, VieCure & Investor



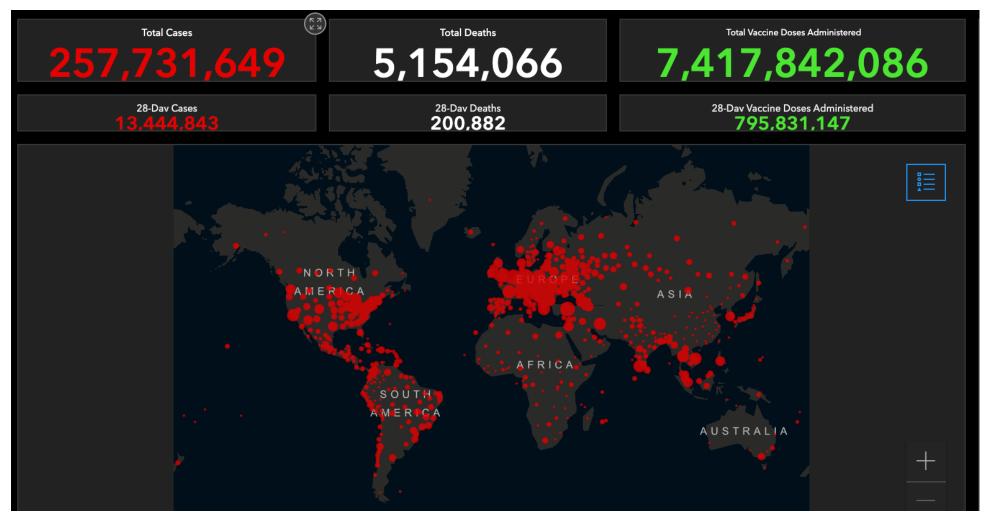
Topics

Covid-19 in context

- Disruptive impact of Covid-19 in the cancer care setting
- Supportive care practice adaptation & longer-term considerations
- Leverage Artificial Intelligence
- Final remarks/messages



Covid-19 in Context: Global Statistics (Nov 21, 2021)



Johns Hopkins: Center for System Science & Engineering



Covid-19 & Cancer

Are cancer patients at higher risk?

- ESMO: assumption may be unreasonable (cancer isn't a single disease, different genomic drivers, tx responses and outcomes)
- Solution Globally: cancer patients have greater risk of contracting covid-19, increased hospitalization, greater morbidity and mortality (Lyman et al, The Lancet 2020;395;1907-18)
- Challenging to differentiate some symptoms (e.g., dyspnea and cough) due to covid-19, other infection(s), or therapy side effects
 - Requires clinicians to do diagnostic work-ups differently e.g., febrile neutropenia guideline adaptions (Cooksley et al., Supp Care Cancer 2020;29:1129-38)



Disruptive Impact of Covid-19 on Cancer Resources

- Human resources reallocation, burnout of clinical and non-clinical staff
- Technical resources imaging, labs... delays!
- Physical space repurposed to make room for covid-19 patient cases
- Financial resources
 - repurposed to augment support
 - ↑ \$ for telemedicine, digital health (remote patient monitoring)
- Reduced cancer screening longer-term consequences!!!



Disruptive Impact of Covid-19 on Cancer Care Delivery

- Dose reduction/dose delay protocols maintain efficacy but mitigate toxicities
- Patient scheduling changes (treatments deferred)
- Amplification of telemedicine and remote-patient-monitoring
- Reduced cancer screening longer-term consequences!!!
- Delays in follow-up/survivorship care missed recurrences?



Covid-19 Disruption for Cancer Patients

- Psychosocial sequelae
 - Fear of contracting covid-19 in clinic (exposure risk)
 - Increased anxiety due to delayed, dose adjusted treatment schedules
 - Reduced provider/care team contact = increased anxiety
 - Fear care team is more detached, continuity of care concerns
- Financial toxicity
 - Patient job loss and loss of benefits due to employment impacts exacerbated by expensive genomic-guided therapies
- Toxicity monitoring/management more challenging physical and nonphysical
- Ompliance/Adherence remote monitoring (orals) ↑ digital health
- Survivorship Care maintaining engagement/communication/connection

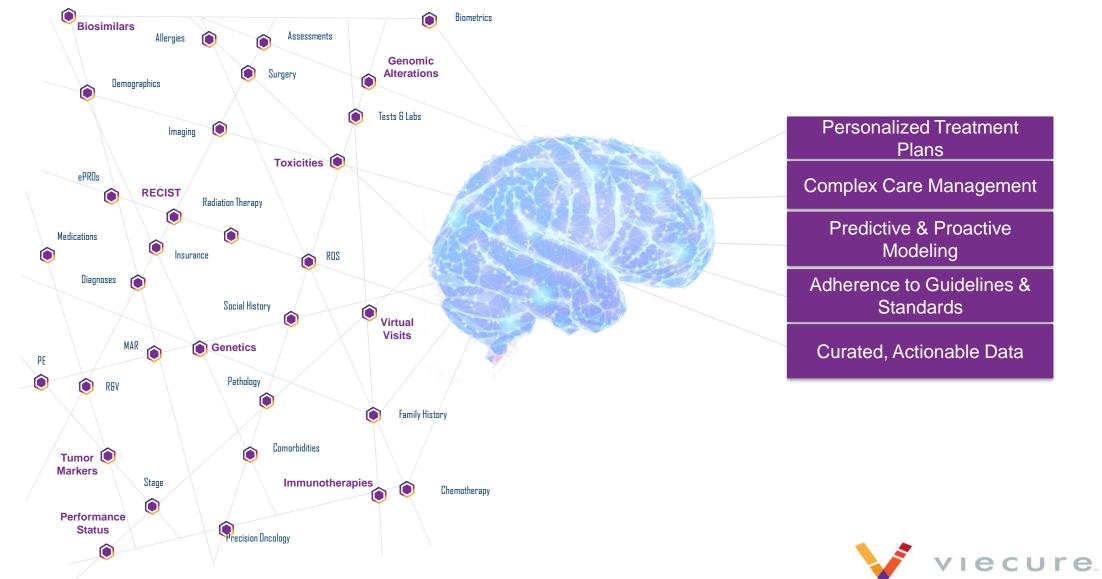


Adapting Supportive Care (new, continuing & survivorship settings)

- Digital Health
 - Remote patient monitoring
 - Telemedicine/telehealth
- Financial toxicity longer-term!
 - Partnerships with industry, government and payers
 - Patient assistance programs
- Mental Health
 - Screening
 - Integration with community resources (patient support groups, professionals)
 - Self-management (e.g., coping)
- Compliance/Adherence partnerships with pharmacies; remote monitoring (orals) ↑ digital health



Leverage A.I. in Clinic to Bridge the Gap



Final Remarks

- Ovid-19 has placed unprecedented pressure on cancer care
 - Patients, Providers, Clinicians and Staff
 - Physical and & Tech resources
- Toxicity management is more challenging during the pandemic, including psychosocial, physical, financial toxicities
- Post-covid-19: adaptations of digital health, treatment protocols will continue, patient expectations [^]
- Greater integration of public/private resources (& community)
- Urgent need to leverage Artificial Intelligence

