BACKGROUND AND SIGNIFICANCE

- Clinical Decision Support (CDS) is a process of providing healthcare team filtered, useful, organized information, at the right time, to optimize the decision-making process for improved outcomes (Timbie, Damberg, Schnieder, and Bell, 2012).
- Use of CDS and Clinical Decision Support Systems (CDSS) allow clinicians to access information which may save time, optimize workflow, and assist in decisions. Below are examples of successful CDS implementations.
- A level one study conducted by O’Connor et al. found improvements in hemoglobin A1c, better control of systolic and diastolic pressures, improved LDL, and provider satisfaction (2011).
- Chen et al. Stride Project used naïve Bayes aggregation approach resulted in improved mortality, decrease ICU and hospital length of stay, and lower readmission (2011).
- Wright et al. (2014), Timbie et al. (2012), Miller et al. (2014), Evans et al. (2015), Ash et al. (2012), incorporate evaluation of clinical workflow as a component of their frameworks.
- Local configuration refer to the system design that adapt to fit the environment where Wright et al. (2014). Richardson et al. (2011), Evans et al. (2015), Ash et al. (2012), Zhou et al. (2012), and Rinott et al. (2011), emphasize the importance of integration.
- Fowler et al. (2014), and O’Connor et al. (2011) found that usability is a factor for success.
- Richardson et al. (2011), Zhou et al. (2012), and Miller et al. (2014), believe in designing systems that are user centric; Grant et al. found that patient centric effective (2016).
- Effective governance allows organizations to garner feedback from users, ensure it aligns with system strategies, and complies with regulatory constraints.

CLINICAL IMPLICATIONS

- Effective CDS and CDSS implementation and maintenance is a multifactorial approach. Improvements in this area saves time, cost, and optimizes data used in care thereby improving health outcomes.

CONCLUSION

- Emerging themes were prevalent in the frameworks for success. However, continued higher levels of research need to be conducted to support identified factors.

REFERENCES

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