Innovation in Inpatient Diabetes Care Amid COVID-19

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Our Hospital System

- 20 acute care hospitals
  - 4100 licensed beds
  - 6400 physicians with active staff privileges
- Inpatient diabetes population exceeding 38K annually
- 23% of all inpatients have a diabetes diagnosis
- Inconsistent Inpatient Endocrinology coverage
- 6 Inpatient Certified Diabetes Care and Education Specialists (CDCESs) at 5 acute care hospitals

Why?

The COVID-19 response resulted in rapid changes to the population served by the Texas Health hospital system.

Texas Health's Inpatient CDCESs made agile adjustments to care coordination, education, and communication to support patients and outcomes during the pandemic.

Examples of systemic stressors:

- *Glycemic management concerns as COVID-19 hospital volumes spiked*
- *Diabetes patients are at higher risk for hospitalization*
- *Higher incidence of stress/steroid-induced hyperglycemia related to treatment algorithms*
- *Many patients with diabetes sent home on insulin for the first time*
- *Lack of bed availability and resources required patients to be discharged quickly with fewer post-discharge resources*
- *PPE conservation*
- *Higher acuity patients experienced fewer education opportunities due to the complexities of care*

A new virtual delivery model for inpatient Diabetes Care and Education Services was created by Texas Health CDCES staff. This model is proactive, reduces process delays, and allows system CDCESs to effectively prioritize patients.

Launching the Glycemic Care Net – Acuity Tool

- Proactively identified vulnerable diabetes patients (T1DM, Insulin pump, hypoglycemia, etc.)
- Developed to help prioritize/identify patients with glycemic management needs
- Quick identification of high-risk patients
- Acuity score is based on discreet documentation
- Patients with a diabetes acuity score >50 are reviewed daily, and providers are notified of potential glycemic management recommendations

Lessons Learned

Changes to the care delivery model implemented by the Inpatient Diabetes team:

- No longer relied on reactive manual referral process; patients identified as higher risk through software improvements
- Triage via chart review, faster in identifying which patients would get maximum benefit from CDCES involvement
- Increased patient volume capacity by 240%
- Virtual visits reduced time spent travelling to patient rooms
- Expanded area of service to include multiple hospitals
- Reduced the number of FTEs required to service current hospitals
- Allows for the expansion to all wholly-owned facilities without additional staff
- Inpatient to Outpatient process digitized for reliability; removed barriers for post-discharge patients to receive follow-up diabetes support services

Outcomes

- Increased CDCES efficiency, allowed reduction in Inpatient FTEs from 6.7 to 5.3
- Increased Patient Volumes
  - 2019: 3100 face-to-face visits
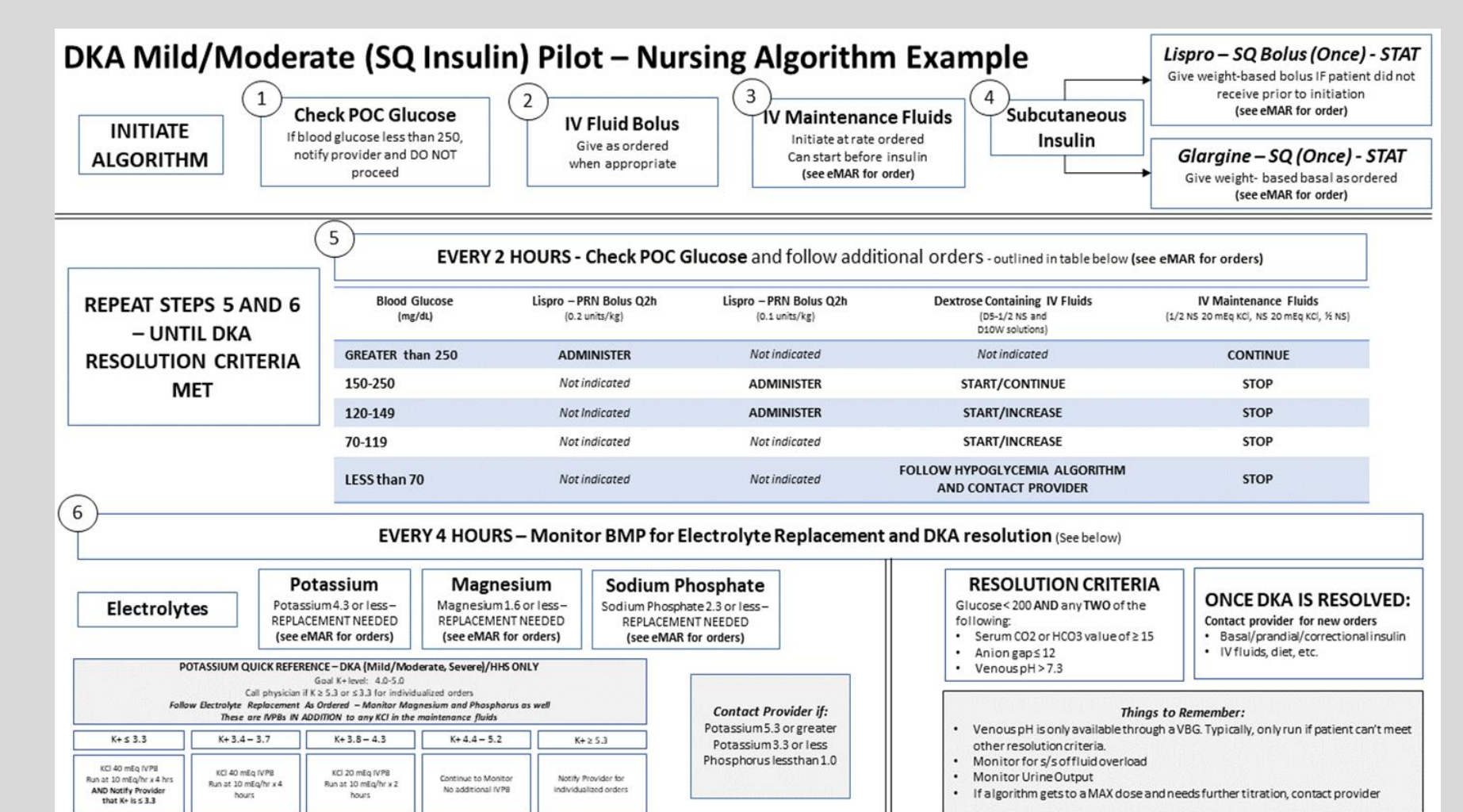 - 2020 (virtual model): 8,000 virtual visits, glycemic management/care coordination

Virtual Inpatient Visits

- Shifted from providing face-to-face visits to using a virtual platform
- Removed reliance on bedside staff, call directly to patient
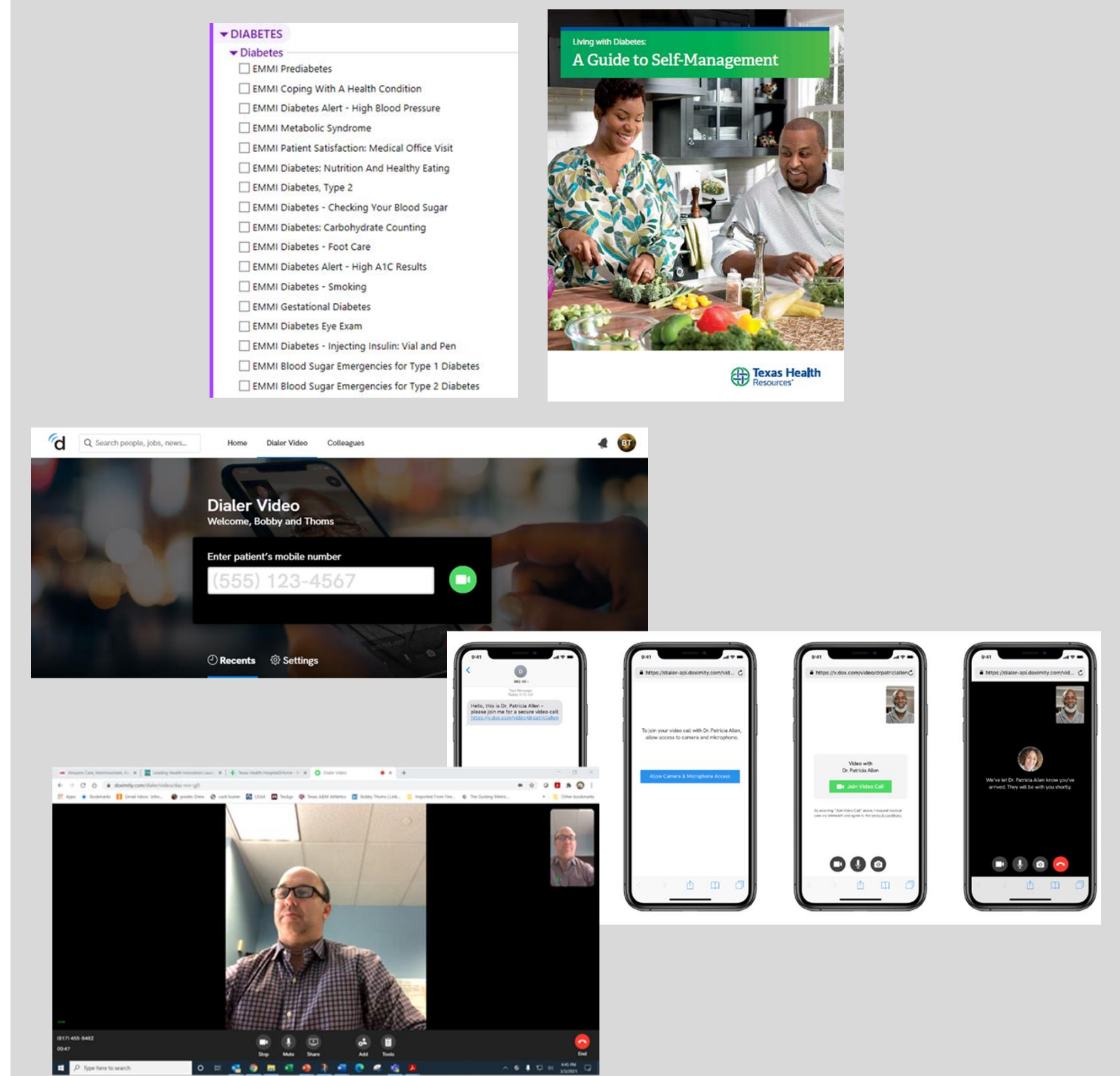
SQ DKA Order Set

- New evidence-based order set developed to manage mild/moderate DKA in a non-ICU setting
- Assist with ED throughput and ICU bed capacity issues
- Implementation Challenges – COVID surges and education, as non-ICU staff previously did not care for DKA patients

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