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Post-implementation outcomes of a remote patient monitoring program after emergency department discharge

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Challenge

The Journal of Emergency Medicine, Vol. 5, pp. 359–362, 1987. Printed in the USA • Copyright © 1987 Pergamon Journals Ltd

**Original
Contribution**

RETURN VISITS TO THE EMERGENCY DEPARTMENT

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Original Investigation

In-Hospital Outcomes and Costs Among Patients Hospitalized During a Return Visit to the Emergency Department

Amber K. Sabbatini, MD, MPH; Keith E. Kocher, MD, MPH; Anirban Basu, PhD, MS; Renee Y. Hsia, MD, MSc

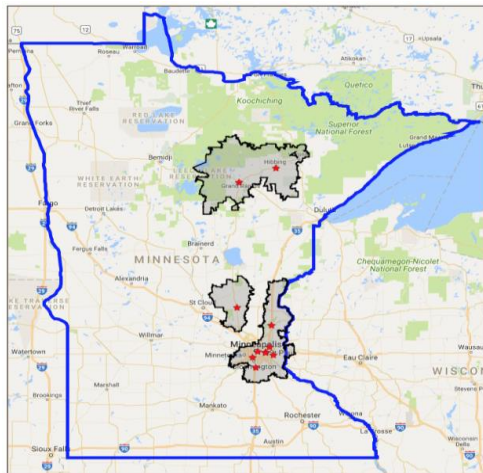
JAMA. 2016;315(7):663-671. doi:10.1001/jama.2016.0649

8.5% returned to the ED within 7 days

19.9% returned to the ED within 30 days



Methods



Rapid implementation of a COVID-19 remote patient monitoring program

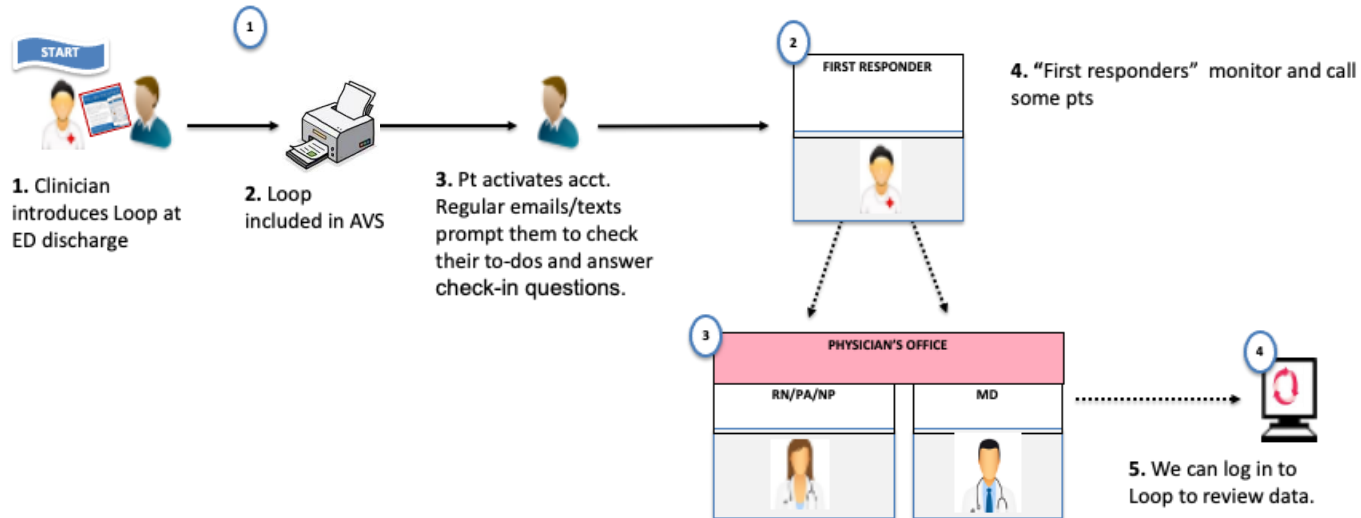
Tucker Annis ^{1,2}, Susan Pleasants, ³ Gretchen Hultman, ⁴ Elizabeth Lindemann, ⁵ Joshua A Thompson, ⁶ Stephanie Billecke, ³ Sameer Badlani, ⁴ and Genevieve B Melton ^{3,4,5*}

Journal of the American Medical Informatics Association, 27(8), 2020, 1326–1330

- October 2020 to April 2022
- 10 hospitals with 107,477 consecutive patients
- English only
- Excluded if enrolled in another RPM or transition program



Workflow





Remote Patient Monitoring Program

Component Type	Start	Schedule Interval	Duration	Message Examples
Check-In Confirmations Surveys	Day 1 Day 5	Daily Daily	5 days Once	“Have you scheduled your follow-up visit(s) yet?”
Reminders	Day 1	Daily	Once	“Do you need to speak to us over the phone? Send us a message through GetWell Loop, and we'll get back to you.”
Checklist	Day 1	Daily	Twice	“If we prescribed any medicines, be sure to fill the prescriptions. Check this off once you've picked up your medicines, or if you have no medicines to pick up.”



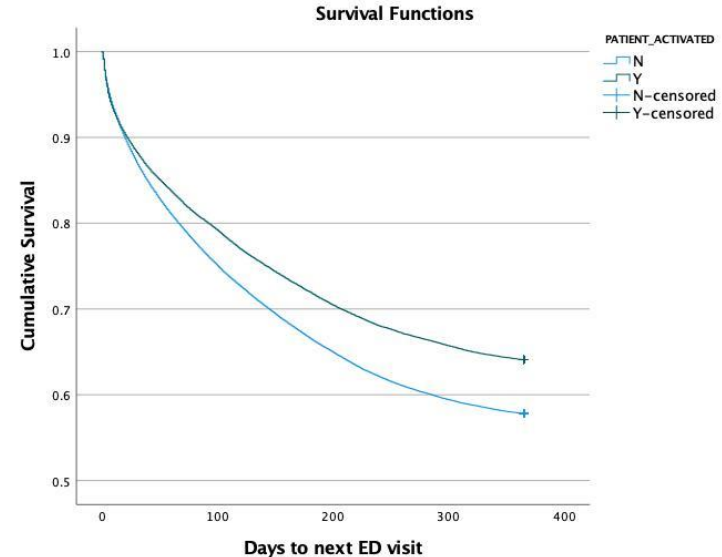
Results

Age (Years)	50.5 (18-105) [20.6]
Sex	
Women	62,050 (57.7%)
Men	45,392 (42.2%)
Unknown	35 (0.0%)
Urgent Acuity	
Yes	62,050 (58.2%)
No	44,977 (41.8%)
Activated RPM	
Yes	28,425 (26.4%)
No	79,052 (73.6%)
RPM Interactions	1.43 (1-12) [0.856]



Results

- 16.2% lower hazard of returning to the ED
- Longer mean survival time
- Higher count of office & telephone visits





Limitations



- 26.4% RPM activation
 - 21.9% - 29.4% across hospitals
- English only
- Missing data from other health systems
- Lack of ED-specific clinical data
- Medicaid (low income) patients were excluded



Future Directions

- Improve study design
- Digital health literacy
- Expand languages
- Cost-effectiveness





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