15 years of ED Case Management:

Lessons learned and benefits realized

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November 2022

PRESCRIBE SAFE MONTEREY COUNTY

MONTAGE Health

> West J Emerg Med. 2009 Aug;10(3):193-4.

Frequent users of the emergency department: risky business

Casey A Grover [1], Reb Jh Close

> West J Emerg Med. 2010 Sep;11(4):336-43.

Emergency department frequent user: pilot study of intensive case management to reduce visits and computed tomography

Casey A Grover [1], Reb Jh Close, Kathy Villarreal, Lee M Goldman

Observational Study > J Emerg Med. 2016 Nov;51(5):595-604.
doi: 10.1016/j.jemermed.2016.06.002. Epub 2016 Aug 29.

The Efficacy of Case Management on Emergency Department Frequent Users: An Eight-Year Observational Study

Casey A Grover [1], Elizabeth Crawford [1], Reb J H Close

> West J Emerg Med. 2018 Mar;19(2):238-244. doi: 10.5811/westjem.2017.9.34710.
Epub 2018 Feb 12.

Case Management Reduces Length of Stay, Charges, and Testing in Emergency Department Frequent Users

Casey A Grover [1], Jameel Sughair [1], Sydney Stoopes [1], Felipe Guillen [1], Leah Tellez [1], Tierra M Wilson [1], Charles Gaccione [1], Reb J H Close [1]

Goals and objectives – Part 1

- We plan to discuss the unique challenges ED frequent users present and how case management can address high ED use

- Objectives
  - Define ED frequent user as it relates to care coordination and readmissions
  - Describe the impact of ED frequent users in healthcare settings
  - Discuss case management/care transition strategies to address ED frequent users
  - Identify available resources in your community

What defines an emergency department frequent user?

- More than 4 ED visits per year
- 4-10 ED visits per year = “system failures”
- 10-20 ED visits per year = chronically ill
- 20+ ED visits per year = severe mental illness, substance use, complex social situation (or all three combined)

What is the effect of ED frequent users on the healthcare system?

- The simplest way to think of it – there's only so much time and there's only so many resources

- ED frequent users:
  - Contribute to ED and hospital crowding
  - Increase healthcare costs
  - Are high utilizers of diagnostic testing given their frequent visits
  - May put additional emotional strain on already stressed out healthcare workers

How big are the effects?

- It's complicated…
- It may depend on your hospital system size, what surrounding resources are available (i.e. do people go to the same hospital or multiple hospitals), what community resources are available, and what is the underlying reason for the multiple visits
- At our hospital…

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Affiliations + expand

PMID: 29560049 PMCID: PMC5851494 DOI: 10.5811/westjem.2017.9.34710

Free PMC article

We followed 158 ED frequent users and put them in a case management program

- ED visits dropped by 49%
- Inpatient admissions dropped by 39%
- CT use dropped by 41%
- US use dropped by 52%
- XR use dropped by 38%
- ED LOS and inpatient LOS dropped by 39% (a total of 178 bed days)
- We reduced charges by 41% (a total of $5,100,000)

Does case management work?

Review > Acad Emerg Med. 2017 Jan;24(1):40-52. doi: 10.1111/acem.13060.

Effectiveness of Interventions to Decrease Emergency Department Visits by Adult Frequent Users: A Systematic Review

Jessica Moe [1], Scott W Kirkland [2], Erin Rawe [1], Maria B Ospina [3], Ben Vandermeer [4], Sandy Campbell [5], Brian H Rowe [1]

Affiliations + expand

PMID: 27473387 DOI: 10.1111/acem.13060

Free article

90% of interventions studied were case management

Conclusions: Interventions targeting frequent ED users appear to decrease ED visits and may improve stable housing. Future research should examine cost-effectiveness and adopt standardized definitions.

> West J Emerg Med. 2010 Sep;11(4):336-43.

Emergency department frequent user: pilot study of intensive case management to reduce visits and computed tomography

Casey A Grover [1], Reb Jh Close, Kathy Villarreal, Lee M Goldman

Affiliations + expand

PMID: 21079705 PMCID: PMC2967685

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ED visits dropped by 83%
CT scans dropped by 67%

Conclusion: Case management can significantly reduce ED use by frequent users, and can also decrease radiation exposure from diagnostic imaging.

> West J Emerg Med. 2018 Mar;19(2):238-244. doi: 10.5811/westjem.2017.9.34710.
Epub 2018 Feb 12.

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ED visits dropped by 49%
Inpatient admissions dropped by 39%

Conclusion: Case management for frequent users of the ED is an effective method to reduce patient visits, the use of diagnostic testing, length of stay, and cost within our institution.

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Table 2. Visits per Patient per Year Prior to Enrollment and after Enrollment

	Number of Patients	Total Visits	Visits per Person per Year
Year prior to enrollment	199	3184	16.0
Year 1 after enrollment	199	1420	7.1
Year 2 after enrollment	199	807	4.1
Year 3 after enrollment	199	608	3.1
Year 4 after enrollment	197	646	3.3
Year 5 after enrollment	194	605	3.1
Year 6 after enrollment	192	379	2.0
Year 7 after enrollment	126	261	2.1
Year 8 after enrollment	73	136	1.9

How does one start a case management program?

You need a team…

The limitations of the walls of the hospital

Community resources

Community Action Team

LATEST HEADLINES

Multi-Disciplinary Outreach Team created to focus on homeless issues in Monterey

Goals and objectives – Part 2

- We plan to discuss the high prevalence of substance use in ED frequent users, and treating substance use can reduce ED utilization

- Objectives
  - Describe the relationship between substance use and high ED utilization
  - Discuss case management/care transition strategies to address substance use in high ED utilizers

When we started…

ORIGINAL RESEARCH

Emergency Department Frequent User: Pilot Study of Intensive Case Management to Reduce Visits and Computed Tomography

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Supervising Section Editor: Jeffrey Druck, MD
Submission history: Submitted June 20, 2009; Revision Received September 12, 2009; Accepted December 27, 2009
Reprints available through open access at http://escholarship.org/uc/uciem_westjem

Our top 3 care plan items involved substance use

Table 2. Patient care plans

Patient Care Plans	Number	Percent
Limited or no narcotic use	80	94.1
Chemical dependency evaluation	29	34.1
Limited or no benzodiazepine use	22	25.9
Referral to pain management	18	21.2
Behavioral health evaluation	11	12.9
Social services/Medicaid referral	5	5.9
Referral to primary care	3	3.5
Referral to physical therapy	3	3.5
Limited or no antibiotic use	1	1.2
Referral to alcoholics anonymous	1	1.2
Referral to neurology	1	1.2

Take two

The Journal of Emergency Medicine, Vol. 51, No. 5, pp. 595–604, 2016

0736-4679/$ - see front matter

http://dx.doi.org/10.1016/j.jemermed.2016.06.002

Administration of Emergency Medicine

THE EFFICACY OF CASE MANAGEMENT ON EMERGENCY DEPARTMENT FREQUENT USERS: AN EIGHT-YEAR OBSERVATIONAL STUDY

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Table 3. Frequency of Various Aspects of Initial Care Plans (n = 199)

	Number of Patients	Percent of Patients
Restricted discharge meds for chronic conditions	165	82.9
Restricted meds in ED for chronic conditions	142	71.4
Referral to chemical dependency/drug treatment	61	30.7
Referral to Pain Management	51	25.6
Referral to support group	29	14.6
Referral to Social Services	27	13.6
Referral to a primary care physician	18	9.0
Referral to Psychiatry	12	6.0
Referral to Physical Therapy	7	3.5
Referral to homeless medical clinic	7	3.5
Referral to Alcoholics Anonymous	4	2.0
Assistance in obtaining insurance	2	1.0
Referral to Neurology	2	1.0
Assistance with smoking cessation	2	1.0
Referral to Dentistry	2	1.0
Referral to Occupational Therapy	1	0.5

ED = emergency department.

Our top 3 care plan items involved medications and substance use

Round three

ORIGINAL RESEARCH

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Section Editor: Eric Snoey, MD
Submission history: Submitted April 28, 2017; Revision received September 4, 2017; Accepted September 14, 2017
Electronically published February 12, 2018
Full text available through open access at http://escholarship.org/uc/uciem_westjem
DOI: 10.5811/westjem.2017.9.34710

Our number one reason for referral was substance use

Table 5. Reasons for referrals to Emergency Department Recurrent Visitor Program. n = 158

Reason for referral	Number of patients	% of total patients
Substance use	101	63.5
Need pain management	96	60.4
Psychiatric illness	46	28.9
Complex psychosocial issues	26	16.4
Needing resources/referrals	21	13.2
Complex medical conditions	20	12.6
Average number of reasons for referrals per patient		2
Number of reasons for referral		
Referred for 1 reason	47	29.7
Referred for 2 reasons	79	50.0
Referred for 3 reasons	23	14.6
Referred for 4 reasons	9	5.7

“The risky use of substances and addiction are the largest and most costly preventable cause of healthcare problems in the United States, yet they are not adequately addressed in healthcare practice”

– American Society of Addiction Medicine

Integrating substance use treatment into the care of ED frequent users and ED case management

Integrating substance use treatment into case management

High-level interventions

- Replacing RN case managers with social workers
- Hiring a drug/alcohol counselor for the emergency department
- Hiring dedicated social workers for the emergency department

Integrating substance use treatment into case management

Physician-level interventions

- Greater than 95 percent of emergency doctors have buprenorphine waiver
- Co-prescribing of naloxone
- Education on substance use disorders for physicians

Integrating substance use treatment into case management

Social work/case manager interventions

- Social workers in the ED connect best with patients
- Follow up/continued contact with patients after discharge
- Team approach to complex patients

Integrating substance use treatment into case management

Community interventions

- Multidisciplinary community action team with local police
- Increased referrals/work with local SUD treatment programs
- Development of a Substance Use Response Team (SURT)

Current state

Patients with substance use in our ED

- Can be given a box of naloxone before discharge
- Can receive buprenorphine if needed for opiate use disorder
- Can receive counseling from a drug/alcohol counselor
- Get referrals (often with warm hand off) to local drug treatment programs
- Can be started on medications for alcohol use disorder (such as naltrexone)
- Are connected to community mutual support groups

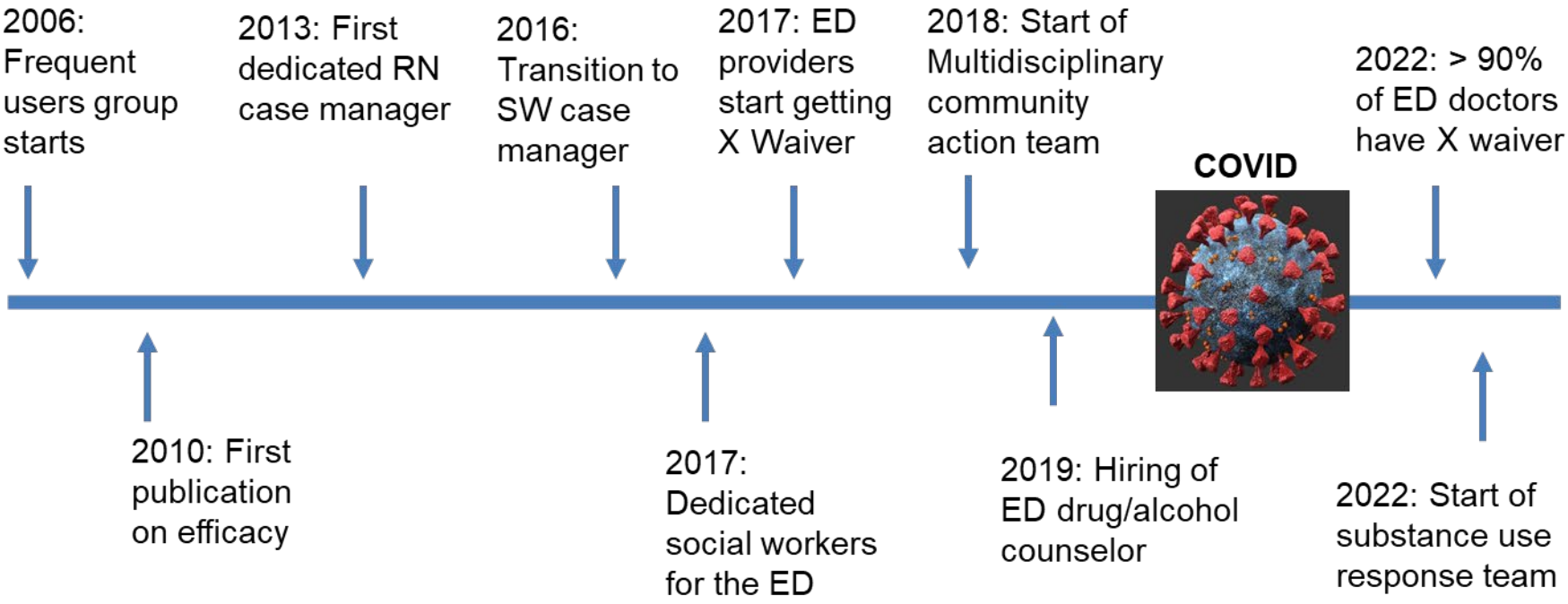
Our goal

- Reduce recurrent ED visits for untreated substance use by treating it
- Prevent recurrent ED visits by treating substance use when it is first diagnosed

Future state

- Dedicated chemical dependency team for the hospital, with every patient with substance use being seen by a doctor/NP/PA
- ED patients with substance use can go from ED to residential treatment program if indicated
- Expanded outpatient services to shorten time to enter treatment after DC from the ED
- And we're due for a study to test our interventions in the high utilizer with substance use sub-population

Timeline of work



Thank you

Questions?

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