

Frailty Screening in Outpatient Geriatric Clinic: A Quality Improvement Project



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BACKGROUND

- Medical frailty: a state of low functional reserve and resilience, increasing risk of adverse outcome after a stressor.
- Due to insidious onset, and confusion between the concepts of clinical frailty and results of aging, many patients are not diagnosed with frailty until functionally disabled.
- 10% of community-dwelling Americans over age 65 are frail.
- Prospect of increased adverse outcomes and expenditures with the aging demographic
- Outpatient frailty screening is now standard in Canada and UK, allowing early interventions and decreased morbidity.
- From 1/1/2019 - 7/31/2021, 15201 patients were seen in our clinic, and frailty was charted in only 53 patients.

PROJECT AIM

- 1) Apply a practical screening for frailty at East Carolina University (ECU) Monk Geriatric Center.
- 2) Increase targeted therapy and decrease disability and mortality.

PROJECT DESIGN

Acceleration Zone (1 m)

Testing Zone (4 m)

Deceleration Zone (1 m)

How much of the time during the past 4 weeks have you felt tired?
(1) All of the time.
(2) Most of the time.
(3) Some of the time.
(4) A little of the time.
(5) None of the time.

By yourself and not using aids, do you have any difficulty walking up 10 steps without resting?
(1) Yes (2) No

By yourself and not using aids, do you have any difficulty walking a couple of blocks (e.g. several hundred yards)?
(1) Yes (2) No

Has a doctor ever told you that you have any of the following illnesses? hypertension, diabetes, cancer (other than a minor skin cancer), chronic lung disease, heart attack, congestive heart failure, angina, asthma, arthritis, stroke, or kidney disease? How many?

How much do you weigh today?
How much did you weigh one year ago?

On a scale of 1-5, how afraid are you (the patient) of falling at home?
(1) Not at all afraid
(2) A little afraid
(3) Moderately afraid
(4) Very afraid
(5) Extremely afraid

CHANGES MADE (PDSA CYCLES)

Plan

- **Cycle 1:**
 - Literature and clinic data review
 - Identify Screening and diagnosis Instruments
 - Create Clinic protocol
- **Cycle 2:**
 - Update diagnostic form
- **Cycle 3**
 - Literature review for education

Do

- **Cycle 1**
 - Implement Screening and diagnostic instruments
 - Implement Nursing protocol
- **Cycle 2**
 - Diagnostic form update
 - Patient handout
- **Cycle 3**
 - Physician education

Act

- **Cycle 1**
 - Nursing protocol update
 - Re-enforce compliance
- **Cycle 2**
 - Patient education material
 - Increase data coding position
 - Update frailty scale
- **Cycle 3**
 - Grand Rounds
 - Update Frailty Smartphrase
 - Update literature

Study

- **Cycle 1**
 - Data reconciliation and analysis
- **Cycle 2**
 - Feedback from nurse and medical records
- **Cycle 3**
 - Physician feedback



RESULTS

Screening	n (580)	Percent
Negative (<5s)	315	54%
Positive (>=5s)	111	19%
Unable to walk	154	26%
Positive	265	46%

FRAIL Scale	n (265)	Percent
Robust (0)	15	6%
Pre-frail (1-2)	92	35%
Frail (3-5)	105	40%
Missing data ?	54	20%

Total frail: 105/580 = 18%

Fear of Falls in positive screens	
Robust	1.3
Prefrail	2.4
Frail	2.9
All positives	2.6

Control group (<5s, given FRAIL scale)		
Total	101	
Robust (0)	47	46.5%
Prefrail (1-2)	43	42.5%
Frail (3-5)	11	10.8%
Average fear of falls	1.66	
Average speed	3.54s	

RESULTS, cont.

Frailty ICD-10 billing and coding

Dates	Claims	Unique MRN's	No prior claim
8/2019-8/2020	60	35	
8/2020-8/2021	30	18	
8/2021-Now	131	97	91

LESSONS LEARNED

1. Consistency of screening test
 - Provider education
 - A simple, generalizable screen
2. Incomplete data collection
 - Team effort – actively seek feedback
 - Develop infrastructure to ensure documentation and follow up
3. Remember the primary objective
 - Do what's best for the patient
4. Billing/coding
 - Speak the same language as your data collectors
 - Adapt study design to data that are possible to collect

NEXT STEPS

1. Collect 3-month follow up data for analysis
2. Subgroup analyses of ambulatory vs. non-ambulatory patients
3. Analysis of actions taken – e.g., physical therapy, nutrition, home health, social work
4. Analysis of morbidity/mortality outcomes
5. Analysis of demographic trends

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