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Increasing Public Perceptions of Stroke

Juan A. Conde

Juan Conde Fabela
UVM Larner College of Medicine

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JUAN CONDE

RUTLAND, VT

FAMILY MED ROTATION 6: DEC 2019 – JAN 2020

COMMUNITY MENTOR: DR. RICHARD BAKER

IDENTIFICATION OF PUBLIC HEALTH NEEDS

- Assessment from publicly available data:
  - Rutland Regional Medical Center Community Health Needs Assessment 2015 – 2017
  - Behavioral Risk Factor Surveillance System (VT Dept of Health & CDC)
  - Individual County DATA BRFSS DATA (VT Dept of Health)
  - 2019 County Health Rankings (Robert Wood Johnson Foundation UW Pop Institute)
  - US County Profile (Institute for Health Metrics & Evaluation)
  - VT Department of Health
    - Index of VT Deaths 2017
    - Vital Statistics Bulletin 2017
- Informal conversation with epidemiologists at UVM
- Formal Interview of Rutland community health care personnel
- Identification:
  - Stroke as leading cause of morbidity and mortality in Rutland VT
  - Necessity to inform public of etiology of stroke, risks, and appropriate treatments.
  - Please see **attached report** for analysis of available data.
- Literature Review on the public awareness of stroke signs/symptoms and treatment.
  - AHA Stroke epidemiological data and surveys
  - AHA guidance
  - Epidemiological studies on stroke awareness by patients.

STROKE – A COSTLY PREVENTABLE HEALTH BURDEN

- Stroke statistics: 80% of strokes are preventable
  - One stroke every 40 sec in the US → Total of ~ 795,000
    - Of this ~600K are first occurrence the rest are recurrent
  - Stroke deaths: 140K/year → 1/20 deaths in the US
  - Morbidity:
    - 10% victims fully recover
    - 25% have minor impairments
    - 50% have major impairments
    - 10% require long term health care facilities
- Costs: Acute event + lifetime cost due to disability and loss of QOL
  - Average of $103,576 per 1st time stroke → 61 billion/year

COMMUNITY PERSPECTIVE ON ISSUE

■ Public Health Personnel from one of Rutland's clinics were assessed on their views of stroke and patients' perspectives:

■ Personnel unaware of high rates of strokes in Rutland VT in comparison to VT overall.

■ Attributed the increased risks due to

1. Differences in socioeconomic profile

2. Chronic Conditions: DM, HTN, HLD, Obesity

3. Lifestyle: lack of exercise, unhealthy diet

4. Lack of knowledge of stroke or other health needs

5. Inability to treat for hemorrhagic stroke locally

6. No full-time neurologist 24/7 in the area
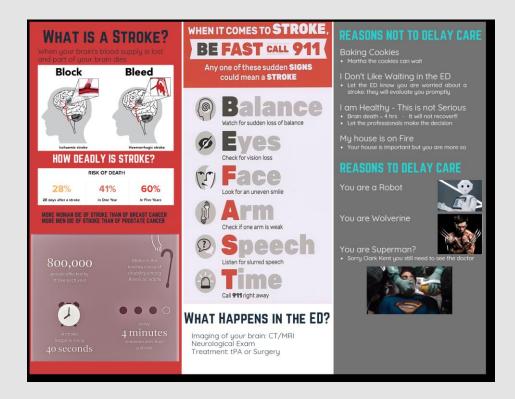
Anecdotal examples:

Patient A: Symptoms of dizziness (Central) and weakness, when told to go to the ED for evaluation patient became upset: She did not want to spend several hours getting tests in the ED. Patient minimized her symptoms and said she really needed to get back home because she wanted to bake cookies.
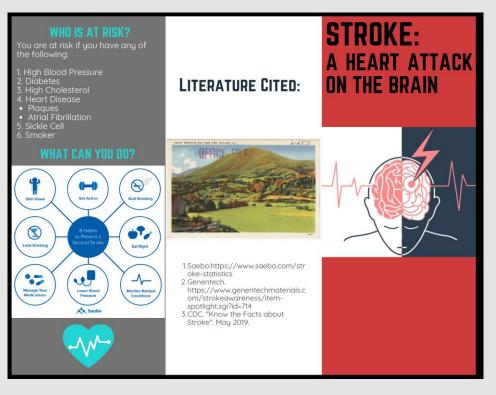
Patient B: Female patient with angina equivalents did not feel the need to be evaluated however some typical symptoms (CP) presented which her daughter in law recognized as an MI. Patient allowed herself to be driven to the ED.

INTERVENTION/METHODOLOGY

- Publicly available Epidemiological Data was utilized for evaluation of Causes of Morbidity/Mortality in Rutland VT

- Interviews with Health Care Personnel and Restaurant Personnel to assess the public perception/characterization of the average Rutland patient

- Based on AHA recommendations: provide public information for patients so that they can identify stroke signs/symptoms as well as risk factors

  - Provide pamphlet to patients at risk of stroke during regular visits

PAMPHLET

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EVALUATION

- Method:

  - Utilize a screening questionnaire for patients with one of the risks of stroke (DM, HTN, Obesity, HLD, Smoking, CAD, Sickle Cell, AFib, Previous TIA/Stroke)

    1. Are you aware of health conditions that increase your risk of stroke?

    2. What are the warning signs of stroke?

    3. What should you do if you have a warning sign of stroke?

  - Failure of the patient to correctly answer all 3 questions should prompt the PCP to give patient a pamphlet and direct them to be aware of stroke risks as well as the need for prompt evaluation (less than 4 hrs)

RECOMMENDATIONS FOR FUTURE PROJECTS

- Gather data on people at risk of stroke before and after pamphlet information

- Assess whether intervention is successful in changing health behaviors

  - Faster evaluation for stroke symptoms

  - Lifestyle modifications:

    - Diet

    - Exercise

    - Smoking cessation

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