


Implementing Interprofessional Alcohol Screening, Brief Intervention & Referral to Treatment (SBIRT) in the Emergency Department: An Evidence-Based Quality Improvement Initiative

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Purpose

- ❑ To develop, deliver and evaluate an alcohol SBIRT educational program, and implement an alcohol SBIRT protocol for emergency department nurses and social workers
- ❑ Alcohol abuse is the 3rd leading cause of preventable death contributing to over 200 diseases and injury-related health conditions
- ❑ Many use the ED as sole source of medical care and SBIRT may provide a window of therapeutic opportunity or "teachable moment"
- ❑ Alcohol-related injuries and deaths
 - ❑ 60-70% homicides
 - ❑ 69% fatal burn injuries
 - ❑ 60% drowning deaths
 - ❑ 40% fatal falls
 - ❑ 40% suicides
 - ❑ 38% motor vehicle fatalities
- ❑ SBIRT identifies, reduces and prevents alcohol abuse by:
 - ❑ Identifying patients with alcohol abuse problems
 - ❑ Providing patients with solid strategy to reduce or eliminate use
 - ❑ Referring patients to appropriate services for treatment
- ❑ PICO: "Does developing, delivering and evaluating an alcohol SBIRT education program and protocol to emergency nurses and social workers improve knowledge and documentation quality to support practice change?"

Evidence-Based Initiative



- ❑ Effectiveness of SBIRT
 - ❑ Reductions in alcohol consumption
 - ❑ Fewer repeat injuries, ED visits & repeat hospitalizations
 - ❑ Fewer traffic incidents & DUI arrests
 - ❑ Potential to increase adherence to alcohol treatment
 - ❑ Ranked 4th preventative service by USPPSTF
- ❑ Theoretical Model
 - ❑ Roger's Diffusion of Innovations
 - ❑ RE-AIM: Reach, Efficacy, Adoption, Implementation, Maintenance
- ❑ Site Needs/Feasibility
 - ❑ Organizational needs assessment revealed practice gap with no current routine alcohol screening


Project Plan

- ❑ Objectives:
 - ❑ Revise the EMR to include 10-point alcohol screening tool and alcohol SBIRT documentation for ED nurses & social workers
 - ❑ Develop & implement E-Learning Health Stream alcohol SBIRT educational module for ED nurses & social workers
 - ❑ Evaluate learning outcomes via pretest/posttest & program evaluation
 - ❑ Evaluate ED nurses & social worker's alcohol SBIRT documentation
- ❑ Project Type:
 - ❑ Quality improvement initiative, quasi-experimental design to measure effects of educational module and EMR documentation protocol regarding nurses' & social workers' knowledge of SBIRT and adherence to EMR SBIRT Protocol and documentation
- ❑ Setting:
 - ❑ 569 bed tertiary hospital: Level I trauma center with approximately 49,000 visits annually; 80 nurses and 4 social workers
- ❑ Participants/Sample: (single convenience, non-randomized cohort)
 - ❑ 80 nurses, 4 social workers and all ED patients meeting inclusion (English speaking, >18, GCS 15, ESI Triage Score 3, 4, or 5)
- ❑ Sources of Data:
 - ❑ 10-question Alcohol Use Disorders Identification Test (AUDIT) validated screening tool
 - ❑ 10-question multiple choice ED alcohol SBIRT knowledge pretest/posttest reviewed by 6 content experts for content validity
 - ❑ 5-question Likert scale survey rating perceptions of achievement of objectives and teaching effectiveness
 - ❑ Nurse/Social worker EMR documentation (inclusion criteria, AUDIT scoring, referral for positive screens, brief intervention, reasons brief intervention not done, referral to treatment)
- ❑ Budget:
 - ❑ Printing: SBIRT cue cards for nurses/social workers (\$200); Patient brochures (free); ED Information Technology services waived
- ❑ Project 2016 Timeline:
 - ❑ March/April: education launched; April/May: protocol launched; May/June: data evaluation; June/July: results dissemination
- ❑ Ethics/Human Subjects Protection:
 - ❑ Loyola IRB Exempt LU#208338; No anticipated safety risk to staff/patients; data de-identified; confidential on secure server.

Evaluation

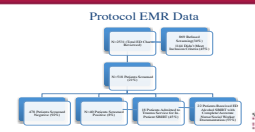
- ❑ Educational Module Evaluation (one month completion time)
 - ❑ 10-multiple choice questions based on module content
 - ❑ Expert panel determining content validity (Scale Content Validity Index Average)
 - ❑ Paired sample t-test to note differences between pretest/posttest scores
 - ❑ Internal consistency measured using Chronbach's alpha
- ❑ Program Evaluation (one month completion time)
 - ❑ Nonparametric descriptive statistics
 - ❑ Likert scale rating perception of achievement of each objective and teaching effectiveness
- ❑ Alcohol SBIRT Protocol and Documentation EMR Evaluation (one month data collection time)
 - ❑ Nonparametric descriptive statistics; AUDIT score; risk stratification; patient characteristics
- ❑ Compliance Monitoring:
 - ❑ Linked to performance evaluation; work-time allowance; CE credit; weekly email reminders
- ❑ Stakeholder Support/Sustainability:
 - ❑ Team support; SBIRT embedded in EMR; SBIRT champions identified; ongoing training

Results



Program Evaluation

Bar chart showing scores for 10 questions. Legend: Correct Answer (Green), Incorrect Answer (Red), Missed Question (Blue).



Protocol EMR Data

Flowchart showing the process from patient identification to documentation and referral.

Characteristic	N (%)
Sex: Male	36 (90)
Mean Age	41
Mean SBIRT Score	10
AUDIT Score < 10 (Minimal Drinking)	36 (90)
AUDIT Score 10-19 (Possible Dependence)	4 (10)
Dependence Assessed by Screen Service for Patient SBIRT	3 (8)
Dependence Reassessed by SBIRT	1 (3)
Insurance	
Medicaid	36 (90)
Medicaid/Other	4 (10)
Medicaid/Other/Alcohol Disorder	3 (8)
Alcohol Use	4 (10)

Documentation Category	N	%	Mean Documentation for positive screen	SD
Documentation entered	25/31	100%	22	100
Appropriate screening	25/31	100%	N/A	N/A
AUDIT Score	1/36	100%	22	100
Referral to Social Worker if positive	40	100%		
Partial documentation	40	100%		

Practice Implications

- ❑ Universal alcohol screening identifies those who may otherwise be undetected until alcohol-related problems are evident
- ❑ ED nurses & social workers play a pivotal role in screening and intervening with patients; not only to highlight the consequences of alcohol use, but also to help manage related health problems
- ❑ The team of ED nurses and social workers, working collaboratively may be the first & only health care providers to recognize unhealthy alcohol behaviors and have an influence on behavior change
- ❑ Recommendations for further study include following up with ED patients at 3 months & 6 months to evaluate for reduction in alcohol consumption or abstinence

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