PREDICTION OF REPEAT VISITS BY VICTIMS OF INTIMATE PARTNER VIOLENCE TO A LEVEL III TRAUMA CENTRE

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BACKGROUND

- The emergency department (ED) is a major "point of entry" into the healthcare system by victims

- *Injury* is the most obvious clinical presentation of domestic violence

- Other clinical presentations – chronic illness, gynecological, psychiatric problems, alcoholism, drug abuse, and suicide attempts are also seen at emergency departments
**REPEATERS (VGH, N = 317)**  
50 patients (5-10 visits each) → 250 visits in total

<table>
<thead>
<tr>
<th>Condition</th>
<th>Count (Percentage)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Drug overdose</td>
<td>13 (26%)</td>
</tr>
<tr>
<td>Alcohol intoxication</td>
<td>7 (14%)</td>
</tr>
<tr>
<td>Psychological problems</td>
<td>6 (12%)</td>
</tr>
<tr>
<td>Suicide attempt/ideation</td>
<td>5 (10%)</td>
</tr>
<tr>
<td>Infections</td>
<td>16 (32%)</td>
</tr>
<tr>
<td>Lacerations/contusions</td>
<td>20 (40%)</td>
</tr>
<tr>
<td>Fractures</td>
<td>12 (24%)</td>
</tr>
<tr>
<td>Pain</td>
<td>11 (22%)</td>
</tr>
<tr>
<td>Burns</td>
<td>1 (2%)</td>
</tr>
<tr>
<td>Trauma</td>
<td>4 (8%)</td>
</tr>
</tbody>
</table>
# Repeaters (VGH)

50 Patients (11-20 Visits Each) → 450 Visits in Total

<table>
<thead>
<tr>
<th>Condition</th>
<th>Count</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Drug overdose</td>
<td>8</td>
<td>17.7%</td>
</tr>
<tr>
<td>Alcohol intoxication</td>
<td>12</td>
<td>26.6%</td>
</tr>
<tr>
<td>Psychological problems</td>
<td>12</td>
<td>26.6%</td>
</tr>
<tr>
<td>Suicide attempt/ideation</td>
<td>4</td>
<td>9%</td>
</tr>
<tr>
<td>Infections</td>
<td>20</td>
<td>44.4%</td>
</tr>
<tr>
<td>Lacerations/contusions</td>
<td>25</td>
<td>55.5%</td>
</tr>
<tr>
<td>Fractures</td>
<td>10</td>
<td>22.2%</td>
</tr>
<tr>
<td>Pain</td>
<td>15</td>
<td>33.3%</td>
</tr>
<tr>
<td>Burns</td>
<td>1</td>
<td>2%</td>
</tr>
<tr>
<td>Trauma</td>
<td>4</td>
<td>9%</td>
</tr>
</tbody>
</table>
REPEATERS (VGH)
25 PATIENTS (>20 VISITS EACH) → 500 VISITS IN TOTAL
DISCLOSED VIOLENCE ON 1.5 VISITS

<table>
<thead>
<tr>
<th>Condition</th>
<th>Count</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Drug overdose</td>
<td>16</td>
<td>64%</td>
</tr>
<tr>
<td>Alcohol intoxication</td>
<td>12</td>
<td>25%</td>
</tr>
<tr>
<td>Psychological problems</td>
<td>8</td>
<td>32%</td>
</tr>
<tr>
<td>Suicide attempt/ideation</td>
<td>3</td>
<td>12%</td>
</tr>
<tr>
<td>Infections</td>
<td>14</td>
<td>56%</td>
</tr>
<tr>
<td>Lacerations/contusions</td>
<td>9</td>
<td>36%</td>
</tr>
<tr>
<td>Fractures</td>
<td>4</td>
<td>16%</td>
</tr>
<tr>
<td>Pain</td>
<td>5</td>
<td>20%</td>
</tr>
<tr>
<td>Burns</td>
<td>1</td>
<td>4%</td>
</tr>
</tbody>
</table>
PURPOSE
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- To compare the population of persons presenting to a Vancouver hospital emergency department two or more times with those presenting once over a 12 year period.
OBJECTIVES

Among repeat vs. single presenters:

- socio-demographic characteristics
- injury profiles and presenting complaints
- hospital services
- referrals on discharge
- develop a prediction model characterizing repeat visitors at VGH
METHODS

- A retrospective study case control study utilizing data previously collected for routine care at Vancouver General Hospital

- 1997-2009

- ED-based patient records linked with ED-based domestic violence documentation
METHODS

- **Case** - an individual who disclosed intimate partner violence on at least one occasion and who had presented to the ER on two or more occasions.

- **Control** - an individual who has disclosed IPV and presented to the ER only once during the study period.
METHODS

- The Domestic Violence Record documents sociodemographic variables, nature of abuse including severity, onset, and frequency, use of weapons, ethnicity, psycho-social assessment, police involvement, and discharge teaching.

- The emergency room database documents age, length of stay, arrival mode, chief complaint, triage acuity, procedures and services, and status at discharge.

- Data was merged using a common unique identifier, the MRN or medical record number.
SOCIODEMOGRAPHIC

Marital Status

- Married
- Dating
- Sep/Divorced

Age

- 10-19
- 20-29
- 30-39
- 40-49
- 50-59
- 60+

% for Marital Status:
- Married: 60%
- Dating: 30%
- Sep/Divorced: 10%

% for Age:
- 10-19: 5%
- 20-29: 15%
- 30-39: 30%
- 40-49: 25%
- 50-59: 10%
- 60+: 5%
NATURE OF ABUSE

Threat to Kill Victim

Threat to kill family/friends

%
NATURE OF ABUSE

Police Involved this Time

Police Involved Previous Time

% 0 50 100 0 50 100

Single
Repeat
NATURE OF ABUSE

Frequency

Threatened with a Weapon

%
NATURE OF ABUSE

Ministry of Children and Family Involved

%  
- Repeat
- Single

%
USE OF HOSPITAL SERVICES

Admitted to ER

Length of stay

% 0 10 20 30 40 50

Repeat Single

343.6
408.9

0 200 400 600

Single Repeat
USE OF HOSPITAL SERVICES

Presenting Complaint

Repeat

Single

%  69.3

5.6  4.5  3.4

17.3

6.7  4.7

2.3  13.5  72.8

Physical

Mental

Addiction

Assault

Domestic Violence named
USE OF HOSPITAL SERVICES

Discharge Diagnosis

Physical illness/unintentional injury
Mental Health
Addiction
Assault

%

Repeat
Single
## INDEPENDENT PREDICTORS OF REPEAT VIOLENCE

<table>
<thead>
<tr>
<th>Predictors</th>
<th>Adj Odds Ratio</th>
<th>95% Confidence Interval</th>
</tr>
</thead>
<tbody>
<tr>
<td>First Nations</td>
<td>2.29</td>
<td>1.30-4.01</td>
</tr>
<tr>
<td>Middle Eastern</td>
<td>5.07</td>
<td>1.13-22.7</td>
</tr>
<tr>
<td>Prev abuse, different partner</td>
<td>3.38</td>
<td>1.88-6.08</td>
</tr>
<tr>
<td>Threat to kill victim</td>
<td>2.98</td>
<td>1.74-5.08</td>
</tr>
<tr>
<td>Mental Illness – presenting complaint</td>
<td>3.03</td>
<td>1.59-5.77</td>
</tr>
</tbody>
</table>
LIMITATIONS

- Captures 80% of ER visits in Vancouver
- Data related to most recent visit among repeat visitors
CONCLUSION
RECOMMENDATIONS FOR PRACTICE

- If ER caregivers can be persuaded *at a minimum* assess and document these individuals at highest risk of repeated violence – they create opportunities for safety planning and referral.

- Ideally, any risk factor should be incorporated into questions for women who have disclosed violence at any time.