PACT AS A READMISSION REDUCTION STRATEGY
KAISER PERMANENTE - COLORADO REGION

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## Factors Contributing to All-Cause 30-Day Readmissions

### Study-in-Brief: In-depth review of causes of 30-day readmissions across 18 hospitals

### Findings:
- **47%** of readmissions were potentially preventable
- **75%** of readmissions causes occurred during discharge or post-discharge

### Most Common Causes (% of All Causes):
- 16% inadequate/untailored discharge plan
- 17% suboptimal condition management & monitoring
- 14% unaddressed social need
- 12% inadequate patient & caregiver learning
- 11% missed referrals and follow ups

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1Medical Care, Volume 50, Number 7, 2012
RISK STRATIFICATION

Know Your Population and Where to Focus Your Efforts / Resources
Of 48 different variables, the 4 most powerful predictors of 30-day risk of readmission/death are:

L = Length of Stay
A = Acuity of Visit (planned vs unplanned)
C = Comorbidities
E = ED use within the last 6 months

Risk Stratification: LACE
Risk of Readmission Scoring Tool

Walvaren et al. (CMAJ (2010) 182(6) : 551-557
<table>
<thead>
<tr>
<th>LACE Score</th>
<th>30-Day Readmit Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>0.0 %</td>
</tr>
<tr>
<td>2</td>
<td>0.0 %</td>
</tr>
<tr>
<td>3</td>
<td>9.1 %</td>
</tr>
<tr>
<td>4</td>
<td>5.9 %</td>
</tr>
<tr>
<td>5</td>
<td>6.3 %</td>
</tr>
<tr>
<td>6</td>
<td>5.7 %</td>
</tr>
<tr>
<td>7</td>
<td>8.7 %</td>
</tr>
<tr>
<td>8</td>
<td>8.9 %</td>
</tr>
<tr>
<td>9</td>
<td>24.8 %</td>
</tr>
<tr>
<td>10</td>
<td>17.1 %</td>
</tr>
<tr>
<td>11</td>
<td>15.7 %</td>
</tr>
<tr>
<td>12</td>
<td>23.8 %</td>
</tr>
<tr>
<td>13</td>
<td>22.0 %</td>
</tr>
<tr>
<td>14</td>
<td>32.0 %</td>
</tr>
<tr>
<td>15</td>
<td>26.1 %</td>
</tr>
<tr>
<td>16</td>
<td>31.8 %</td>
</tr>
<tr>
<td>17</td>
<td>33.3 %</td>
</tr>
</tbody>
</table>

**BASELINE Readmission Rates by LACE Score**

- **Low Risk** 4.5%
- **Moderate Risk** 9%
- **High Risk** 25%
Risk Distribution
TAILORED CARE

One size does NOT fit all
Care Pathways According to Risk of Readmission

Low
- Transition call from RN care coordinator within 48-72 hours
- Telephonic Medication Reconciliation
- Appointment booking and confirmation
- PCP Phone visit 7 days
- Override to higher level of care if necessary

Moderate
- Same as low risk, except:
  - Office visit with PCP within 7 days

High
- Same as low and medium risk, except:
  - PACT home visit within 72 hrs
  - PCP appointment per PACT APN recommendation
Care Pathway for High Risk Members

**Discharge**
- Spoken instructions quickly forgotten

**48-72 hours**

**PACT Visit**
- Med rec
- Physical exam
- Reinforce care plan
- Activate / educate
- Order labs

**Day 7**

**Care Coordination**
- CCM (NCQA QI7)
- Disease Management
- Resources
- Ensure care plan followed

**Day 15**

**Follow up Appointment(s)**
- PCP has DC summary and PACT consult note
- Patients bring in homework (wts, BP, HR)
- Review labs
- Titrate accordingly

**Day 30**
Post-Acute Care Transitions

PACT
PACT

By coupling a robust readmission prediction tool (LACE) with strategically-designed post-discharge home visits (PACT), KPCO is able to target interventions specifically to patients who are at high risk of readmission and **significantly reduce** their rate of readmission.

**A NEW MODEL...**
PACT

- A single home visit within 72 hours of hospital discharge
- To targeted, high-risk members
- Conducted by nurse practitioners INTERNAL to KPCO
- Who collaborate and communicate across our care delivery system regarding each specific patient care plan and needs.
PACT: The Secret Sauce

Taking care of uncertainty and leveraging competencies – medical care and community care – to create a supportive wrap-around system for the most vulnerable and complex patients.

- Right message in the right place at the right time – “golden window of opportunity”
- Not the same as Home Health Care
- PACT bridges care and allows for staggering points of care over time
Lost in Translation

What dogs hear...

What patients hear...

Larson, Far Side
PACT Domains

Here is WHAT we DO

- Objective empirical assessment of the patient in their home
- Ensure proper follow up
- Intensive, in-person Medication Reconciliation and Management
- Patient education & engagement (homework)
- Assess and treat post-hospitalization complications or treatment failures
- Referrals, translation, ordering labs and titrating medications
Here is WHY it WORKS

- 1:1 with the patient in their home environment – they can hear you
- Tincture of time – complexity requires it and so do our patients
- Ownership – “here’s my number”
- Not only pays for itself but contributes quality and cost metrics to the organization (NCQA QI7, QIP to CMS)
- Truly Triple Aim – high quality care with exceptional outcomes for less money
I understand my medications, how to take them and why I need them.

MEDICATION RECONCILIATION
<table>
<thead>
<tr>
<th>Medication</th>
<th>Directions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hydralazine 25 mg oral tab</td>
<td>Take one tablet orally twice daily</td>
</tr>
<tr>
<td>Amitriptyline 25 mg oral tab</td>
<td>Take one tablet orally every night at bedtime for pain</td>
</tr>
<tr>
<td>Warfarin 2.5 mg oral tab</td>
<td>Take as directed by the clinical pharmacy anticoagulation service to prevent blood clots</td>
</tr>
<tr>
<td>Ciprofloxacin 250 mg oral tab</td>
<td>Take one tablet orally daily for prostate infection</td>
</tr>
<tr>
<td>One Touch Ultra Test Misc Strips</td>
<td>Use as directed</td>
</tr>
<tr>
<td>One Touch Delica Lancets Misc</td>
<td>Use as directed</td>
</tr>
<tr>
<td>Novolin N 100 unit/ml subq susp</td>
<td>Use as directed</td>
</tr>
<tr>
<td>Bd Insulin Syringe Ultra-Fine 1/2 ml 30 x 1/2” misc syringe</td>
<td>Use as directed</td>
</tr>
<tr>
<td>Simvastatin 80 mg oral tab</td>
<td>Take one-half tablet (40mg) orally every day with evening meal for cholesterol</td>
</tr>
<tr>
<td>Isosorbide mononitrate 60 mg oral 24hr sr tab</td>
<td>Take one tablet orally daily</td>
</tr>
<tr>
<td>Atenolol 50 mg oral tab</td>
<td>Take one tablet orally twice daily for hypertension</td>
</tr>
<tr>
<td>Furosemide 20 mg oral tab</td>
<td>Take one tablet orally twice daily</td>
</tr>
<tr>
<td>Aspirin 81 mg oral chew tab</td>
<td>Chew 1 tablet po once daily for prevention of heart attack and stroke</td>
</tr>
<tr>
<td>Calcitriol 0.5 mcg oral cap oxycodone 5 mg oral tab</td>
<td>Take four capsules orally every week</td>
</tr>
<tr>
<td>Lisinopril 40 mg oral tab (discontinued)</td>
<td>Take one to two tablets orally every four to six hours for pain</td>
</tr>
<tr>
<td>Cholest off 450 mg oral tab</td>
<td>Take one tablet orally twice daily</td>
</tr>
<tr>
<td>Amiodarone 200 mg take 2 bid (400 mg)</td>
<td>Take 2 tablets po bid for cholesterol</td>
</tr>
</tbody>
</table>
MEDICATION DISCREPANCY EXAMPLES:

Patient taking double dose of B-blocker. DC instructions state, “Metoprolol 25 mg, take 2 tabs twice daily”. Pt had 50 mg tabs at home and was taking “2 tabs” as stated in the DC summary, therefore, taking Metoprolol 100 mg twice daily (200 mg total). Pulse was 46 at PACT visit, BP 96/48.

DC instructions stated **STOP** Amlodipine and to **START** Metoprolol. At PACT visit, wife was giving patient both medications.
Medication Management and Discrepancy Reconciliation

HOW ABOUT A FEW OF THE PRETTY, PINK AND YELLOW ONES TODAY, DEAR
RESULTS

Proof is in the Pudding
60% Reduction in Readmission Rate of the High Risk Group

LACE score 9 to 15

% Readmission Rate

BASELINE, 25%

PACT, 11.5%
OTHER BENEFITS

• ED, Obs **AND** inpatient utilization reduction
  
  AKA - reduction in the Acute Care Return rate

• Very high level of patient satisfaction

• Upstream / downstream provider satisfaction from knowing that PACT is an extra layer of support for enabling execution of care plans

• Saves on home health visit costs
NEXT STEPS for PACT

Expand PACT to SNF discharges

Readmit Rate by LACE Category

30 day readmit from 1st hospital discharge
- 0 - 6: 14%
- 7 - 8: 19%
- 9 - 15: 23%
- >= 16: 45%

30 day readmit from SNF discharge
- 0 - 6: 16%
- 7 - 8: 24%
- 9 - 15: 30%
- >= 16: 54%
## Getting Real

Include **ALL** 30-day Acute Care Returns in your readmission analysis

<table>
<thead>
<tr>
<th></th>
<th>PACT Patients (A)</th>
<th>Control Patients (B)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Total Patients</strong></td>
<td>532</td>
<td>144</td>
</tr>
<tr>
<td><strong>Inpatient Readmission events</strong></td>
<td>65</td>
<td>34</td>
</tr>
<tr>
<td>(Inpatient status only)</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Readmission rate</strong> (total number of readmissions/total discharges)</td>
<td>12.22%</td>
<td>23.61%</td>
</tr>
<tr>
<td><strong>Readmission rate</strong> (total number of readmissions/ total discharges + total readmissions)</td>
<td>10.89%</td>
<td>19.10%</td>
</tr>
<tr>
<td><strong>Acute Care Return Events</strong> (returns to emergency room, observation status and inpatient readmissions)</td>
<td>150</td>
<td>88</td>
</tr>
<tr>
<td><strong>Acute Care Return Rate</strong> (total acute readmissions/total discharges)</td>
<td>28.20%</td>
<td>61.11%</td>
</tr>
<tr>
<td><strong>Acute Care Return Rate</strong> (total acute readmissions/total discharges + total acute returns)</td>
<td>21.99%</td>
<td>37.93%</td>
</tr>
</tbody>
</table>
In conclusion

- Readmissions are common and costly
- Risk stratify your population and target your interventions accordingly
- Communicate the same plan to the patient and care team
- Keep the patient at the center of all you do
THANK YOU QUESTIONS........

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