Methadone (and pregnancy care) For Women With Problematic Substance Use

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Regina Qu’Appelle Health Region

OBJECTIVES
For substance using women on methadone who are pregnant:
What changes during/because of pregnancy?
Use the opportunity
What are we doing about it?

Ostrich Protocol
What approach can we take?

Figure 1: Annual incidence of neonatal abstinence syndrome (NAS) Ontario, 1992–2011.

Substance Use In Pregnancy
Few diseases can compete with addiction in their capacity to generate misinformation, misjudgment, or misunderstanding.
Lancet Editorial, 2012

Why Be A User?
• Life hurts
• Substances reduce pain/increase pleasure
• Rapid delivery to the brain (e.g. IV or inhaled) gives a more pleasurable effect
• Everyone else is using
Effects on Dopamine Release

Food - The pleasure transmitter

Sex

Nicotine

Morphine

Effects of Drugs on Dopamine Release

Amphetamine

Cocaine

Nicotine

Morphine

Why Be A User?

Because it hurts.

What hurts??

1. Back, head, etc., etc.
   Opioids prescribed – and continued--and dependency
   Deal with dependency. Deal with the pain if

2. Life
   Opioids used, usually illicitly, usually with others
   Deal with dependency and drug seeking.
   Learn coping. Have non-user support.

Some Relevant Information About Regina

Population and Public Health Services:

Health Status Report

The Report provides information on the health of the population in the Regina Qu'Appelle Health Region. This provides not only a "benchmark" about where the health of the population stands, but also serves as a basis for future health planning in terms of recognizing diverse needs associated with demographic structure, health status, health behaviours and prevention measures, and determinants of health.
Care For Substance Using Women

Our Region: Strengths and Challenges

What are some of the markers of our problems

Some Relevant Information About Regina

Selected Diseases

Suicide Attempt
Mental Disorders (290-318)
Injuries and Poisonings (E800-999)
Diabetes (250)

The people in the poorer neighbourhoods bear a huge burden of disease

And reproductive casualty

It is not that poorer people don’t get care. They must be getting ineffective care.

In summary, our study shows that, despite the availability of essential health care services at no out-of-pocket expense, family income and other socioeconomic factors are strongly associated with some adverse perinatal outcomes, including gestational diabetes, small-for-gestational-age live births and infant death.

These findings highlight potential gaps in health information and in social support for socioeconomically vulnerable mothers and families in the year after birth.

KS Joseph et al. CMAJ 2007;177(6):583-90

HIV in Saskatchewan

- Provincial rates of new HIV infections:
  - steady increase in rates from 5.4 to 19.3 per 100,000 population
  - significantly different from Canadian rates which remained steady
  - more younger Aboriginal women are becoming infected

Saskatchewan and Canadian HIV Rates 2004 - 2009
Medical Diseases in Pregnancy: HIV

Risk Factors and Aboriginal Status

<table>
<thead>
<tr>
<th>Circumstance</th>
<th>Aboriginal</th>
<th>Non-aboriginal</th>
</tr>
</thead>
<tbody>
<tr>
<td>New HIV Infection Caused by IDU</td>
<td>53%</td>
<td>14%</td>
</tr>
<tr>
<td>Female Affected</td>
<td>45%</td>
<td>20%</td>
</tr>
</tbody>
</table>

CMAJ November 2006:175:1359

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ABORIGINAL HEALTH

This both is and is not an aboriginal health issue

Clearly substance use is not limited to First Nations people and First Nations people are not necessarily substance users

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ABORIGINAL HEALTH

BUT it is a poverty, disadvantaged issue and First Nations are disproportionately disadvantaged

And there are particular factors of a post-colonial country, marginalization, cultural fragility, decreased sense of self-worth etc.
A Model of Care For Substance Using Women In Regina

Some Things We Can Do

Care that is Harm Reducing and Women Centered

Harm Reduction
Expecting a woman to stop using drugs and/or alcohol when she is not ready is unrealistic and can be harmful

Sarah Payne in With Child, 2007

Some Things We Can Do

Best Practices

<table>
<thead>
<tr>
<th>INTERVENTION</th>
<th>Poor Effect</th>
<th>Indeterminate/Insufficient</th>
<th>Good Effect</th>
</tr>
</thead>
<tbody>
<tr>
<td>Social skills</td>
<td></td>
<td></td>
<td>+18</td>
</tr>
<tr>
<td>Self-Control training</td>
<td></td>
<td></td>
<td>+17</td>
</tr>
<tr>
<td>Stress Management</td>
<td></td>
<td></td>
<td>+6</td>
</tr>
<tr>
<td>Acupuncture</td>
<td></td>
<td>+1</td>
<td></td>
</tr>
<tr>
<td>Psychotropic medication</td>
<td></td>
<td>--2</td>
<td></td>
</tr>
<tr>
<td>Aversion therapy</td>
<td>--2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Psychotherapy</td>
<td>--4</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Educational Lectures</td>
<td>--5</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Holder et al.
Some Things We Can Do
A Philosophy of Care

Some Things We Can Do: Methadone
Methadone maintenance therapy versus no opioid replacement therapy for opioid dependence (Review)
Mattick RP, Breen C, Kimber J, Davoli M

This is a reprint of a Cochrane review, prepared and maintained by The Cochrane Collaboration and published in The Cochrane Library 2007, Issue 3

A Model of Care For Substance Using Women In Regina
Some Things We Can Do: Methadone

Maternal and Fetal Benefits of Methadone Treatment

- Reduces illegal opiate use as well as the use of other drugs, thus diminishing the risk of hepatitis, HIV/AIDS, and other sexually transmitted diseases
- Helps to remove the opiate-dependent woman from the drug-seeking environment
- May eliminate illegal behaviors, such as prostitution
- Prevents fluctuation of the maternal drug level over the course of the day
- Reduces maternal mortality and severe morbidity
- Permits a more stable intrauterine environment for the fetus, with a decreased risk of hypoxia
- Leads to improvement in the mother’s nutrition and infant birth weight

### A Model of Care For Substance Using Women In Regina
Some Things We Can Do: Methadone

#### Maternal and Fetal Benefits of Methadone Treatment

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Maternal and Fetal Benefits of Methadone Treatment

Improves the woman's ability to participate in prenatal care and substance abuse treatment
Enhances the woman's ability to prepare for the birth of her infant and begin homemaking.
Stabilized mothers on methadone are more likely to retain custody of their children.
Children are more closely monitored when the mother is part of a rehabilitation program.

Some Things We Can Do
Antepartum Care

Use the opportunity
Infections
Anemia
Dental
Life skills/ prepare for parenting
Establish dating
Follow fetal growth
Use ultrasound images to "make it real"
Be the methadone prescriber
Enhance compliance
Make getting care easier

Explain about methadone changes
The clearance increases
She is not more addicted, she is more pregnant
Involve the partner
Use split dosing

A Model of Care For Substance Using Women In Regina
Some Things We Can Do: Methadone
THE METHADONE- MAINTAINED PREGNANCY

Problematic Substance Use in Pregnancy
- Medical detoxification
- Leave untreated
- Methadone programs

Pregnancy is an opportunity to bring women into obstetrical, medical and drug treatment

Stephen R. Kandall, Tatiana M. Doberczak, Maria Jantunen, Janet Stein
Clinics in Perinatology

Beyond the Epidemic: November 2007 George D. Carson
Clinical Study
Evaluation of a Low-Threshold/High-Tolerance Methadone Maintenance Treatment Clinic in Saint John, New Brunswick, Canada: One Year Retention Rate and Illicit Drug Use

Timothy K. S. Christie,1,3 Ali Murugesan,1,3 Dana Manzey,4 Michael V. O’Shaugnessy,5 and Duncan Webster1

95% retention 67% abstinent from illicit opioids

This one year retention shows 95% of clients remained abstinent from illicit opioids with an additional 67% abstained from cocaine use. Conclusions: This novel feature of the LTHM NODT data is that patients are not almost all maintained because of lack of availability treatment. Traditional comprehensive NODT programs showed a majority of treatment retention in clients with an effective biological-social model that support the biological/social model, whereas the LTHM approach utilizes a medical model and clinic services at medical supervision.

Table 2. Predicted Peak and Trough Plasma Methadone Values for Various Doses and Dosing Intervals

<table>
<thead>
<tr>
<th>Methadone (mg/ml)</th>
<th>30 mg QD</th>
<th>15 mg BID</th>
<th>45 mg QD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Peak</td>
<td>76.5</td>
<td>52.1</td>
<td>115.2</td>
</tr>
<tr>
<td>Trough</td>
<td>9.9</td>
<td>18.8</td>
<td>14.8</td>
</tr>
</tbody>
</table>

Manage the pregnancy issues
  - Indomethacin for pain
  - Nausea with and without the methadone
  - Constipation

Partner issues and safety
  - Anticipate social services/custody
  - I would hate to be a social worker
  - Will the child be safe? How did she do as a pregnant woman

Contraception planning
  - Give the prescription

Ultrasound Scans
  - Dating: Will often be unsure
  - Anatomy
    - Motivational - with feed back and pictures

Screen for MRSA
  - If enough negatives then avoid isolation

Prenatal classes
  - Select carefully

Prepare for coming to the hospital
Some Things We Can Do

Care in Labour

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Some Things We Can Do: Pain Relief in Labour

Intrapartum and Postpartum Analgesia for Women Maintained on Methadone During Pregnancy

OBJECTIVE: To determine whether methadone maintenance alters intrapartum or postpartum pain or medication requirements.

Labor and delivery is a painful process. The treatment of acute pain during hospitalization has emerged as an important health care concern among both providers and patients.

Marjorie Meyer, MD, Katherine Wagner, MD, Anna Benvenuto, Dawn Plante, RN, and Diantha Howard, MS

VOL. 110, NO. 2, PART 1, AUGUST 2007 OBSTETRICS & GYNECOLOGY

A Model of Care For Substance Using Women In Regina

Beyond the Epidemic  November 2007     George D. Carson

Some Things We Can Do: Pain Relief in Labour

CONCLUSION: Methadone-maintained women have similar analgesic needs and response during labor, but require 70% more opiate analgesic after cesarean delivery.

Meyer et al Analgesia for Methadone-Maintained Pregnancy
OBSTETRICS & GYNECOLOGY 2007

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Some Things We Can Do

Care After Delivery

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PPO for methadone
Any one can continue it

Lots of non-judgmental support
Epidural analgesia
Point of care HIV testing

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A Model of Care For Substance Using Women In Regina

Some Things We Can Do: Pain Relief in Labour

Labour Hurts For Everyone

An Epidural Regional Anesthetic Works For Almost Everyone

An Epidural Does Not Use Systemic Narcotics so patients and staff feel better about that

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Caring After Delivery

It is a long-term commitment
Safe care and custody
Babies are: delightful
scary
stress causing
It takes a team
It takes preplanning
It takes changing the plans

A Model of Care For Substance Using Women
Some Things We Can Do: Care After Delivery
Rooming-in compared with standard care for newborns of mothers using methadone or heroin

PARTICIPANTS We selected 32 women in the city of Vancouver known to have used heroin or methadone during pregnancy between October 2001 and December 2002. Comparison groups were a historical cohort of 38 women in Vancouver and a concurrent cohort of 36 women cared for in a neighbouring community hospital.

MAIN OUTCOME MEASURES Need for treatment with morphine, number of days of treatment with morphine, and whether babies were discharged in the custody of their mothers.


Table 4 Infant outcomes by study cohort and adjusted relative risks

<table>
<thead>
<tr>
<th>OUTCOMES</th>
<th>BRITISH COLUMBIA WESTERN HOSPITAL (ROOMING IN N = 32 N (%))</th>
<th>BRITISH COLUMBIA HISTORICAL (NOT ROOMING IN N = 38 N (%))</th>
<th>RELATIVE RISK (95% CONFIDENCE INTERVAL)</th>
<th>SUBURBAN HOSPITAL (ROOMING IN N = 36 N (%))</th>
<th>RELATIVE RISK (95% CONFIDENCE INTERVAL)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Treated with morphine*</td>
<td>8 (25.0)</td>
<td>21 (55.3)</td>
<td>0.40 (0.20 – 0.78)</td>
<td>19 (52.8)</td>
<td>0.39 (0.20 – 0.75)</td>
</tr>
<tr>
<td>Admitted to an NICU</td>
<td>12 (37.5)</td>
<td>34 (89.5)</td>
<td>0.41 (0.25 – 0.65)</td>
<td>30 (83.3)</td>
<td>0.45 (0.11 – 0.57)</td>
</tr>
<tr>
<td>Discharged in custody of mother</td>
<td>23 (71.9)</td>
<td>12 (31.6)</td>
<td>2.23 (1.43 – 3.98)</td>
<td>17 (42.5)</td>
<td>1.52 (1.15 – 2.53)</td>
</tr>
</tbody>
</table>


Caring After Delivery
Detox
Addiction counselling
Tapering methadone
Treat Hepatitis C
Immunize for Hepatitis A and B
Continue HIV medication
Contraception
Depo Pro Vera
Long acting forgettable

Provide Care that is Harm Reducing and Women Centered

“The secret of caring for the patient is caring for the patient”
Sir William Osler