# Infection Control & Prevention Practitioner & The Infectious

Snotty Nosed Kid to Less Snotty
Nosed 55 yr old
with Anderson-Fabry's Disease



#### Outline

1. Describe my professional experience

10 min

- 1. CV
- Change theory & pt/staff compliance with Nosocomial Infection Prevention & Control Precautions
- 2. Describe my Medical Conditions

20 min

- 1. Snotty Nosed Kid & Adult
- 2. Fabry's Disease
- 3. The effects of IPC Precautions on my life.
- 3. Questions 15 min

## Sheila Kennedy CV

- IPCP, Shaughnessy Hospital, Vancouver in 1991-93
- CNM-IPC unit, Riyadh Al Kharj Armed Forces Hospital, Riyadh, Kingdom of Saudi Arabia 1994-97
- IPCP, GF Strong and Pearson, Vancouver 1997-98
- IPCP, Prince Sultan Cardiac Centre, Riyadh 1998-99
- IPCP, St Paul's, Vancouver 99-2000
- Manager, IPCU, Providence Alaska, Anchorage, Alaska 2000-02
- OCHS RN-Infection Diseases only, Alaska Regional Hospital, Anchorage 2002-03
- Interior health 2003-06
- Long Term Disability



Why am I smiling? I arrived in February & hadn't experienced the singular joy of wearing head to toe black polyester in 40 + degree Celsius!!!

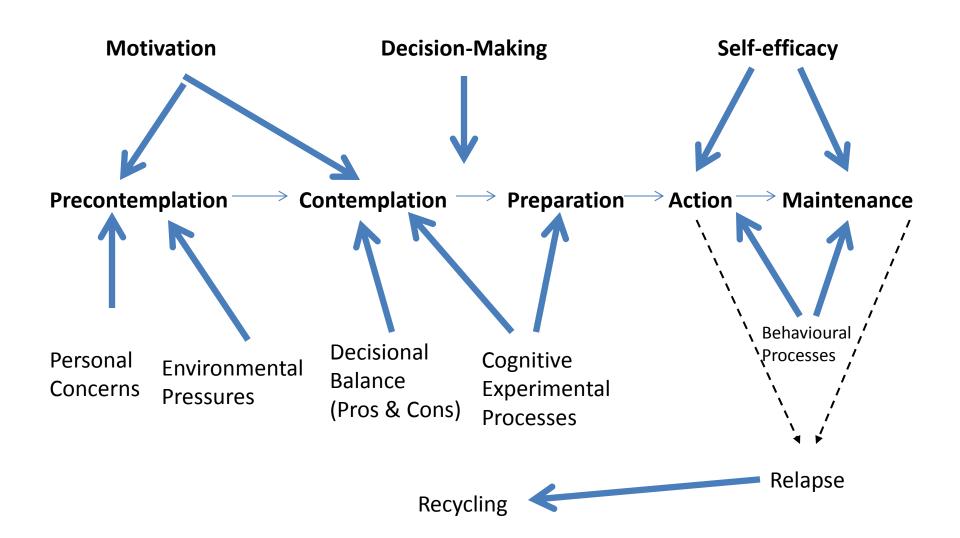
# How Do People Change?

- People change voluntarily only when they
  - Become concerned about the need for change
  - Become convinced that the change is in their best interests or will benefit them more than cost them
  - Organize a plan of action that they are committed to implementing
  - Take the actions that are necessary to make the change and sustain the change

# Stage of Change Tasks

Precontemplation	Awareness, Concern,Confidence
Contemplation	Risk-Reward Analysis & Decision making
Preparation	Commitment & Creating an Effective/Acceptable Plan
Action	Adequate Implementation of Plan and Revising as Needed
Maintenance	Integration into Lifestyle

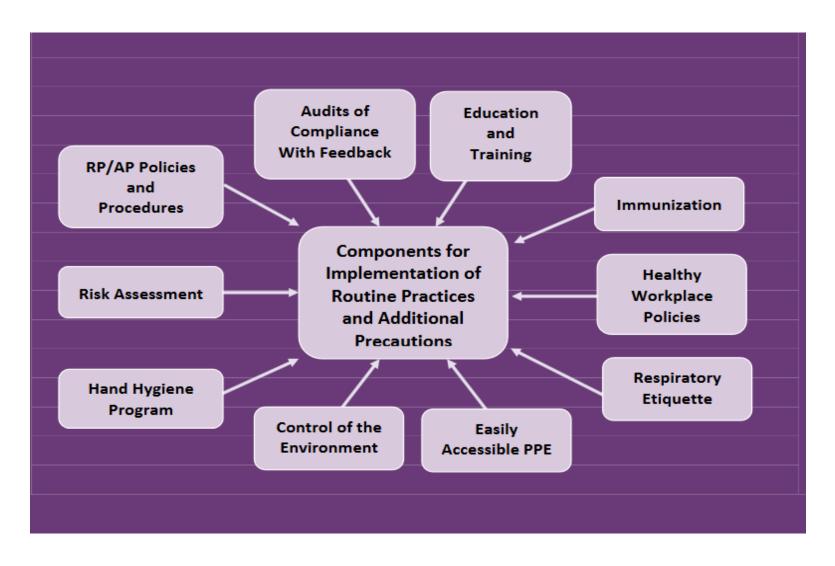
# Theoretical & practical considerations related to movement through the Stages of Change





"What if we don't change at all ...
and something magical just happens?"

#### Routine and Additional Precautions



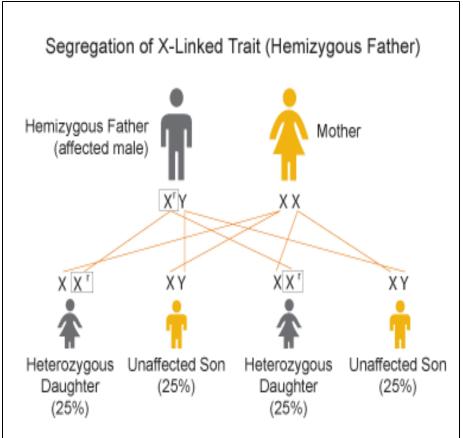
# Snotty nosed kid to Snotty nose adult

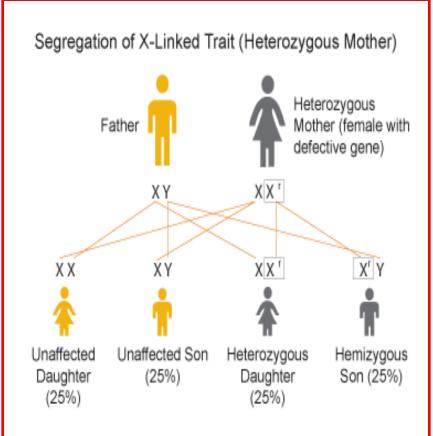
- Wide allergy pattern
- Chronic ENT infections
- Hx of Febile Convulsions bw 2-6 yr (rubbing EHOH & ice bath horrors)
- Asthma (22 yrs)
- URTI infections tx with antibiotics >30 courses (stopped counting 1.5 decades ago)
- New antihistamines, nasal sprays etc & more ways to avoid allergens
- Basic infection control measures such as:
  - Good handwashing,
  - Avoiding contact with people who have active infections
  - Immunizations
  - Nasal lavage

#### Anderson-Fabry Disease

- Anderson-Fabry (europe) Fabry Disease (n. america)
- Fabry patients are missing or lack sufficient  $\alpha$ -galactosidase A ( $\alpha$ -Gal A) enzyme which results in sugars and fatty acids (Gb3) accumulating in the lysosomes, which function as the cells' recycling centres, and impairs the function of several major organs.
- This can become a major problem in parts of the body that depend on small blood vessels, since the build-up – or "storage" – of Gb3 can clog these vessels
- Fabry disease is a X-linked inherited disorder
- An estimated 1/40,000 to 60,000 people have Fabry disease (low due to delay/difficulty with Dx)
- Nova Scotia (1 million) has as many Fabry pts as Spain (40 million)
  - Fabry testing is recommended for all people in Nova Scotia

## Fabry Disease Genetics





## **Genetic Counselling**

- I was diagnosed 1<sup>st</sup> in Spring 2003
- My Sister and Mother were diagnosed later that year
- My Mother had 2 half sisters:
  - 1. Aunt # 1 was deceased, so I notified her 2 adult children in England & gratefully they were negative.
  - 2. Aunt # 2 refused to be tested and refused to notify her adult children that they should be tested.



## Fabry Disease – Systems/Symptoms

Pain	Brain	Heart	Kidney	Skin	GI	Eyes	Ears	Fatigue
Arcoparesis	TIA/Strokes	Changes in Heart wall thickness -LVH	Proteinuria	Angio- keratomas bt nipples & knees	GERD	Corneal changes – •Corneal whorls •Cataracts	Tinnitus	++++++!!!!!
Arthragias/ Myalgial	Depression /Anxiety-? Primary or Secondary	Rhythm changes- Afib, Brady, LVH	↓ GFR	√ Sweating	IBS	Sudden blindness	Hearing loss	
Pain Crises		High BP Value issues Heart attacks Heart failure	End Stage Renal Disease	Unable to tolerate extreme temp changes			Balance issues	
Triggers - sudden changes in internal or external temp, in relative humidity, & stress		Elevated Troponin						

### Fabry Disease – Systems/Symptoms

Lungs	Bones	Growth	GU	Blood	Immune
SOB	Osteoporosis	Delays	Infertility (males)	Ferritin Hemoglobin	Immune response to GB3 in tissues
Chronic Bronchitis					

## Fabry Txs

- IV Enzyme Replacement Therapy (ERT)
- 2 drugs available
- Estimated yearly drug cost:

>\$250,000

- Oral Chaperone Therapy
  - Only for certain mutations (yeah me)
  - Should be approved by provinces by the end 2018

#### **Gene Therapy**

The first Fabry man to receive Gene Therapy in a Phase I clinical study was in 2017 in Canada. Studies are now being enrolled to do further investigation. (donated blood marrow)

### 2 Hospitalizations

#### 1. acute bronchitis

- 1. Tx: Prednisone/Clarythomiycin-(should be used with caution in pt with heart arrythmias)
- 2. Day 2 of antibiotic 2 hours of palpitations @ 0100-0300
- 3. Returned to walkin clinic-sent to Vernon Jubilee Hospital on a Saturday morning
- 4. Admitted query **heart attack** to CCU (\(\bar{Treponin}\))
- 5. Infection Control Concerns:
  - 1. Inconsistent hand cleaning all CCU staff
  - 2. I asked if they wished to swab me for resistant bacterial pathogens due to the # of antibiotics I have ingested in my life staff told me it was unnecessary
  - 3. Equipment cleaning was excellent
  - 4. Very little hand hygiene in radiology etc
  - 5. I was hesitant to asking staff if they would mind using the hand sanitizer in front of me.

# 2 Hospitalizations (con't)

#### 2. ? Syncope

- Renal disease tx focuses on ACE/ARB, low sodium diet, weight management to lower BP
- 2. My family has paradoxically low BP (few readings of hypertensive except in hospital) +++ orthostatic hypotension
- 3. Bradycardia (resting pulse then was 30-50 range)
- 4. 2 bed room (by door) on medicine
- 5. Infection Control Concerns
  - 1. Inconsistent hand cleaning all staff
  - 2. I asked if they wished to swab me for resistant bacterial pathogens due to the # of antibiotics I have ingested in my life staff told me it was unnecessary
  - 3. Equipment cleaning hit & miss
  - 4. Very little hand hygiene in radiology etc
  - 5. I was hesitant to asking staff if they would mind using the hand sanitizer in front of me.
- 6. Non infection control concern
  - 1. Admitting Dr looked up Fabry's disease on Wikipedia then we had a 15 minute argument concerning the errors in the wiki article

#### Clinic visits

- Highly variable hand cleaning in employees
- Highly variable equipment cleaning
  - New neurologist 1<sup>st</sup> appt & the pin
- Compliance with Airborne/Droplet a complete gong show (employees & clients)

