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Medication Access for First Nations Patients with Inflammatory Arthritis

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Abstract

Objective:
Prescription coverage for First Nations (FN) Manitobans is provided by a federal insurance program (FNIHB), while all other Manitobans (AOM) are covered by Manitoba Pharmacare (MBP). These two programs differ substantially with respect to formulary rules, logistics and complexity. We investigated whether the program differences result in differences in access to biologic medications for FN versus AOM patients with inflammatory arthritis (IA).

Methods:
New prescriptions for biologic medications for all IA patients followed at the Arthritis Centre were tracked for a 4 month period. All IA patients for whom a new biologic prescription was initiated were recorded at the time of their clinic visits. The time from the date of the request to medication approval, time to first dose administration, and timelines between steps of the approval process were recorded (e.g. receipt of forms from FNIHB), along with reasons for delay or denial, if applicable. The number of prior disease modifying medications (DMARDs), including prior biologics failed as well as concurrent prednisone use, was abstracted from the Arthritis Centre database for each patient and compared for FN and AOM.

Results:
Twenty-five percent of IA patients seen at our centre are FN. From February - May 2012 38 new applications were made for biologics for FN patients, and 129 applications for AOM. The mean time to approval was 14.2 days for FN, compared to 1.5 days for AOM, $p < 0.001$. This difference related primarily to more 'outliers' in the FN group. Fifty percent of AOM received approval on the same day, while 50% of FN received approval within 7 days, but 25% of FN received approval in >30 days, and 5% in >58 days, while for 95% of AOM patients, approval was received within 3 days. Findings were similar for time to first dose of medications. FN patients had failed a mean of 4.5 DMARDs compared to 3.4 in AOM; p=0.012, and 58% of FN were taking prednisone, compared to 35% of AOM; p=0.015.

Conclusion:
Time to approval and initiation of biologic medications for IA was longer in FN compared to AOM patients. This difference alone, while statistically significant, is unlikely to be a clinically significant contributor to IA outcomes for FN. However, taken together with increased DMARD failures and prednisone use in FN, along with known increased disease severity, these results suggest that difficult medication access contributes to delayed care and worse outcomes for FN with IA.

Background

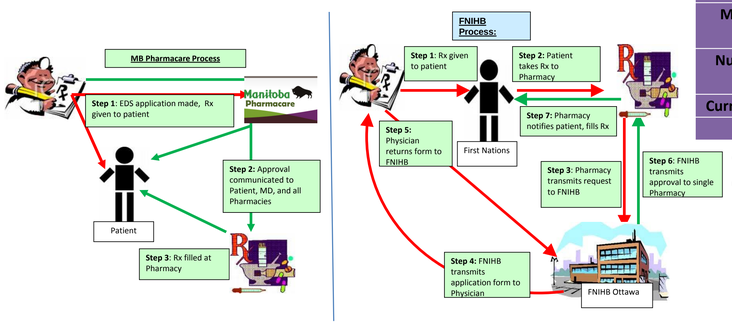
- First Nations Canadians are known to have more frequent and more severe rheumatoid arthritis.
- In Manitoba, FN with RA are 10 years younger at presentation, more frequently seropositive and have greater large joint involvement(1) and develop RA at least twice as frequently as non-FN Manitobans(2).
- HAQ scores, acute phase reactants and patient and physician global disease activity scores are all significantly higher in FN patients (1).
- One contributor to worse outcomes may be the process to obtain exceptional drug coverage for the newer, more expensive medications, this process differs for FN and non-FN Manitobans.
- This project compared the time to obtain coverage and medication initiation through Manitoba Health Pharmacare (MBP) and First Nations and Inuit Health Branch (FNIHB).

Background

- The FNIHB process is much more complex, with multiple potential areas of communication breakdown compared to the Pharmacare process.

	Manitoba Pharmacare	First Nations and Inuit Health Branch
	Patient and physician agree on need for medication requiring EDS approval	
	↓	↓
1	Physician writes prescription (Rx) and applies to Pharmacare EDS	Physician writes prescription
2	Pharmacare simultaneously communicates approval or denial to prescribing physician, patients, and all Manitoba Pharmacies.	Patient takes prescription to Pharmacy
3	Patient fills prescription, or physician initiates appeal process.	Pharmacy faxes EDS request to Ottawa (FNIHB office)
4		Ottawa faxes EDS form to physician's office
5		Physician fills in application, returns to FNIHB in Ottawa
6		Ottawa communicates approval or denial only to requesting pharmacy, not patient or prescribing MD
7		Pharmacy (perhaps) notifies patient of approval (or denial), and fills prescription.
		Appeal, if needed, must be initiated by patient

- The Manitoba Pharmacare form for biologic approval is a simple one page form, designed by our clinic, and available in our clinic.
- The FNIHB application form for biologic approval is a 3 page form, not available to physicians until the request is initiated by the patient bringing the prescription to the pharmacy. ("Client centered program").



Methods

- All requests for exceptional medication coverage for all inflammatory arthritis patients attending the Arthritis Centre clinic were tracked for a 4 month period.
- The following information was collected and compared between First Nations (FN) Manitobans and all other Manitobans (AOM):
  - Duration of time to medication approval
  - Time to first dose administration
  - Reasons for delay/miscommunication/denial *(if any)*
  - Prior DMARD failures
  - Proportion on oral prednisone

Results

- From February to May 2012, 167 new applications for biologics were made at the Arthritis Centre.
- Thirty-eight (23%0 were for FN patietns, 129 (77%) were for AOM.

Differences in time to medication approval and initiation between First Nations and All Other Manitobans

	First Nations Manitobans	All Other Manitobans	*p*
N	38	129	
Mean time to Medication Approval , days,	14.2	1.5	<0.001
Mean Time to first Dose administration, days	37.3	15.1	<0.001
Number of Prior DMARD failures	4.5	3.4	0.012
Current Prednisone Rx (%)	(22) 58	45 (35)	0.015

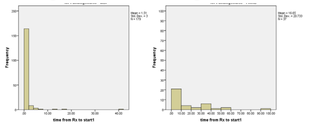
- Reasons for delayed approval or initiation resulted from communication failures at all points in the process:
  - FNIHB form sent to wrong physician
  - Lost FNIHB forms
  - Pharmacy receiving approval is not patient's home pharmacy
  - Patient and/or physician not notified of approval (medication not initiated)
  - Patient and/or physician not notified of denial (medication not initiated, appeal not initiated)

Results

- Most of the differences between FNIHB and MBP in time to obtain approval were due to outliers.
- For 95% of MBP-funded patients, approval was received in 3 days, while approval took longer than 30days for 25% of FNIHB patients, and longer than 58 days for 5%.

Time to Prescription to Medication Start

Funding Source: MBP **Funding Source FNIHB**

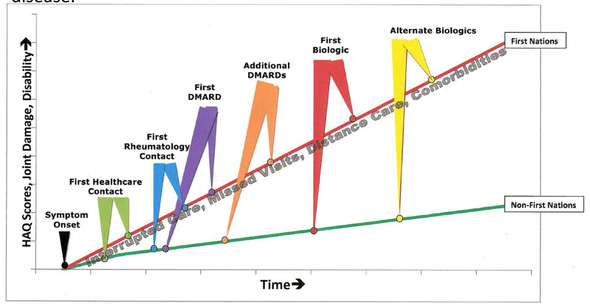


Distribution of Time to Approval

	MBP	FNIHB
Percentiles	Days to approval	
5	1	
10	1	
25	1	2
50	1	7
75	1	32
90	1	45
95	3	57

Conclusions

- Time to approval and initiation of biologic medications for IA was longer in FN compared to AOM patients.
- While frustrating and time-consuming, the Medication Access process is unlikely to be a the sole clinically significant contributor to poor inflammatory arthritis outcomes for FN.
- However, taken together with increased DMARD failures and more prednisone use in FN, along with known increased disease severity, these results suggest that difficult medication access contributes to delayed care and worse outcomes for FN with inflammatory arthritis.
- ***Hypothesis***: Poor outcomes for FN with inflammatory arthritis are a result of disparate care at multiple points during the course of disease.



- Future research should focus on identifying additional barriers to care and development of an improved care-map

1.Peschken CA, Hitchon CA, Robinson DB, Smolik I, Barnabe CR, Prematilake S et al. Rheumatoid arthritis in a north american native population: longitudinal followup and comparison with a white population. J Rheumatol 2010; 37(8):1589-95. 2. Barnabe C, Elias B, Bartlett J, Roos L, Peschken C. Arthritis in Aboriginal Manitobans: evidence for a high burden of disease. J Rheumatol 2008; 35(6):1145-50.