Evaluation of the Receipt of Adequate Pharmacological and Psychological Treatment for Incident Depression and Anxiety in Individuals Living with Inflammatory Arthritis

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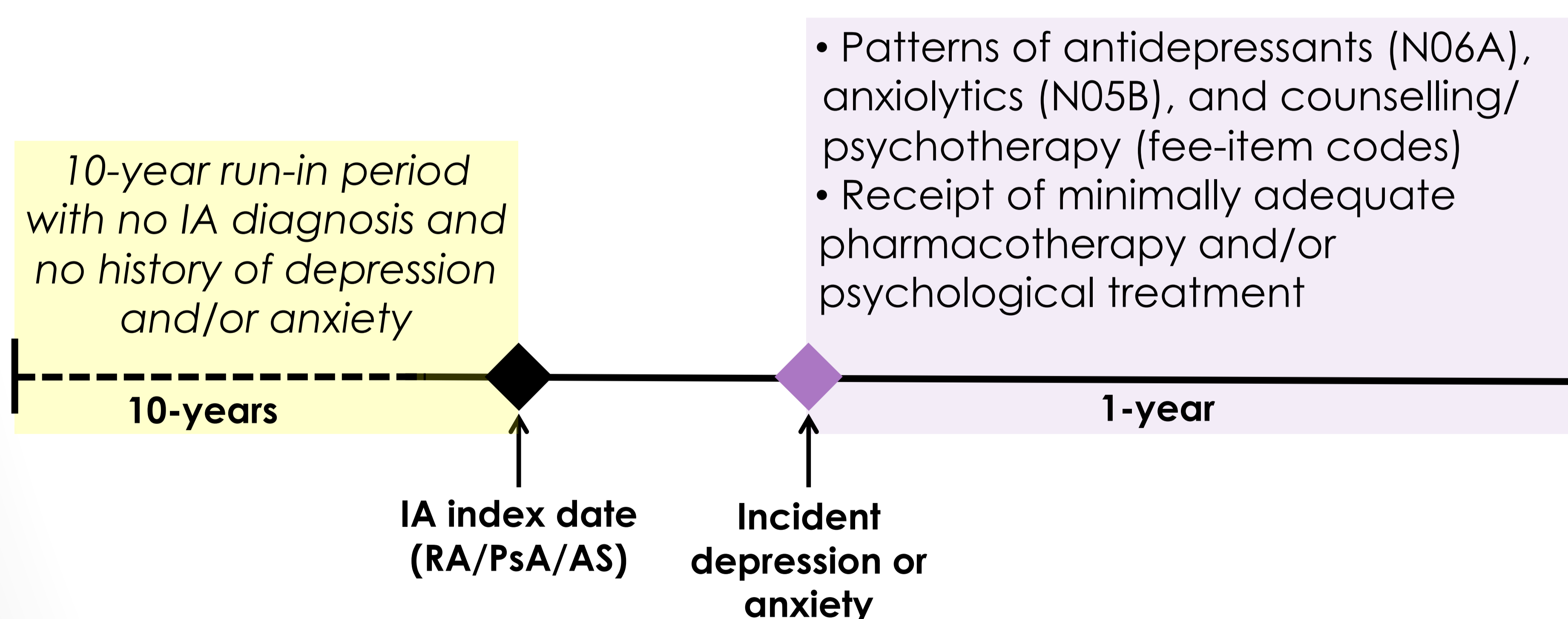
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Background

- People living with inflammatory arthritis (IA) have greater incidence and prevalence of depression and anxiety, which is associated with several negative health consequences.
- Unknown whether individuals with IA are receiving adequate mental health treatment.

Objective

To describe patterns of pharmacotherapy and psychological treatment and evaluate the receipt of minimally adequate treatment for incident depression and anxiety in individuals with IA, specifically ankylosing spondylitis (AS), psoriatic arthritis (PsA), and rheumatoid arthritis (RA).

Methods

- **Data source:** Administrative health data from Population Data BC.

10-year run-in period with no IA diagnosis and no history of depression and/or anxiety

- Patterns of antidepressants (N06A), anxiolytics (N05B), and counselling/ psychotherapy (fee-item codes)
- Receipt of minimally adequate pharmacotherapy and/or psychological treatment

10-years — IA index date (RA/PsA/AS) — Incident depression or anxiety — 1-year

Assessed mental health treatment in the first year following incident depression and/or anxiety among IA and IA-free controls.

- **Minimally adequate pharmacotherapy:** ≥84 days' supply of antidepressants
- **Minimally adequate psychological treatment:** ≥4 counselling or psychotherapy services
- **Statistical analysis:** Multivariable logistic regression to evaluate the odds of individuals with IA receiving minimally adequate pharmacotherapy and/or psychological treatment compared to IA-free controls.

Results

Table 1. Characteristics of individuals with inflammatory arthritis (IA) and IA-free controls with incident depression or anxiety.

Characteristic	Depression IA (n=6,951)	Depression IA-free controls (n=6,951)	Anxiety IA (n=3,701)	Anxiety IA-free controls (n=3,701)
Age, mean (SD)	54.8 (18.3)	54.8 (18.3)	52.9 (16.8)	52.9 (16.8)
Female, n (%)	4555 (65.5)	4555 (65.5)	2751 (74.3)	2751 (74.3)
Type of inflammatory arthritis, n (%)				
Ankylosing spondylitis	792 (11.4)	---	458 (12.4)	---
Psoriatic arthritis	521 (7.5)	---	326 (8.8)	---
Rheumatoid arthritis	5638 (81.1)	---	2917 (78.8)	---
Charlson-Romano comorbidity index, mean (SD)	0.95 (1.09)	0.36 (1.06)	0.93 (1.04)	0.32 (0.90)

Descriptive statistics were determined for the year prior to IA index date.
Abbreviations: SD – standard deviation

*The receipt of minimally adequate pharmacotherapy <u>or</u> psychological treatment in individuals with IA was observed for **59.2% with depression** and **53.3% with anxiety.***

Table 2. Odds of receiving minimally adequate pharmacotherapy and/or psychological treatment for depression and anxiety in individuals with inflammatory arthritis (IA) compared to IA-free controls.

	Depression OR (95% CI)	Anxiety OR (95% CI)
1: Minimally adequate pharmacotherapy		
Unadjusted model	1.11 (1.03, 1.19)	1.12 (1.02, 1.23)
Adjusted model[a]	1.09 (1.02, 1.17)	1.10 (1.00, 1.21)
2: Minimally adequate psychological treatment		
Unadjusted model	0.99 (0.91, 1.08)	1.08 (0.96, 1.22)
Adjusted model[a]	0.99 (0.90, 1.08)	1.07 (0.94, 1.21)
3: Minimally adequate pharmacotherapy or psychological treatment		
Unadjusted model	1.11 (1.03, 1.19)	1.09 (0.99, 1.20)
Adjusted model[a]	1.09 (1.02, 1.18)	1.07 (0.97, 1.18)

[a]Adjusted for age, sex, comorbidity index, neighbourhood income quintile, and residence.
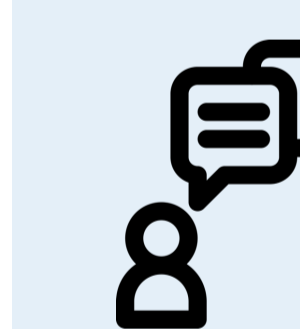*Abbreviations: 95% CI – 95% confidence interval; OR – odds ratio*

Pharmacotherapy

	Depression IA	Depression IA-free	Anxiety IA	Anxiety IA-free
Antidepressants				
Days' supply, mean (SD)	226.3 (127.8)	223.8 (127.7)	239.6 (128.5)	236.5 (125.7)
≥1 antidepressant, n (%)	**3963 (64.3)**	**3829 (61.4)**	**1911 (58.5)**	**1805 (54.2)**
≥1 tricyclic antidepressant, n (%)	**666 (10.8)**	**442 (7.1)**	**418 (12.8)**	**259 (7.8)**
Anxiolytics				
Days' supply BZD, mean (SD)	**112.7 (123.1)**	**97.5 (115.6)**	**123.7 (127.5)**	**112.4 (125.3)**
≥1 anxiolytic, n (%)	**1700 (27.6)**	**1474 (23.6)**	**1529 (46.8)**	**1336 (40.1)**
≥1 BZD, n (%)	**1605 (26.0)**	**1402 (22.5)**	**1470 (45.0)**	**1298 (39.0)**
Minimally Adequate Pharmacotherapy, n (%)	**3113 (50.5)**	**2993 (48.0)**	**1530 (46.9)**	**1467 (44.1)**

Bold entries= p-value <0.05 for IA vs. IA-free control

Psychological Treatment

	Depression IA	Depression IA-free	Anxiety IA	Anxiety IA-free
Psychological treatment				
Mental health services, mean (SD)	2.6 (5.5)	2.8 (6.8)	3.0 (7.0)	3.0 (8.0)
≥1 mental health service, n (%)	4110 (66.7)	4164 (66.7)	1905 (58.3)	1893 (56.9)
Minimally Adequate Psychological Treatment, n (%)	1208 (19.6)	1231 (19.7)	660 (20.2)	633 (19.0)

Bold entries= p-value <0.05 for IA vs. IA-free control

Conclusion

A substantial proportion of individuals with IA were not receiving adequate mental health treatment for depression and anxiety. Opportunities to increase access to mental health services include supported self-management, peer support groups, and expansion of publicly funded services to address unmet counselling needs.

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