

Canada Future Directions in IBD: Pandemics, Practice, and Policy

Drs. Jennifer Jones and Eric Benchimol

November 7, 2020

Objectives

- Review the most up-to-date public health policies from the Government of Canada
- Review the up-to-date recommendations from the CCC COVID-19 Task Force
- Consider how the IBD clinical and research communities can plan for the next pandemic

Case 1. Ms. Jones

Setting the scene: It is April 2020, and you are conducting a virtual visit at the request of Ms. Jones who you have been following since 2016 for ileocolonic Crohn's disease.

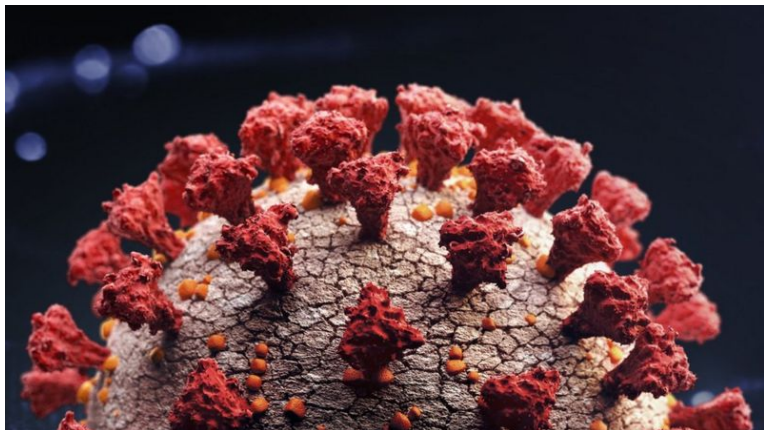
- Ms. Jones is a 37 year-old female who was diagnosed in 2010 with long-segment ileal Crohn's disease after presenting with an acute small bowel obstruction
 - extended ileocolonic resection (> 35cm) with primary ileocolonic anastomosis
 - 2016: admitted to hospital after presenting with an acute CD flare with acute on chronic diarrhea, RLQ abdominal pain, a 20 lb weight loss and CT enterography findings consistent with recurrent long-segment ileal CD
 - Induced with IV solumedrol and received infliximab in combination with azathioprine (2mg/kg- TPMT phenotype normal).

6 Months later . . .April 2020

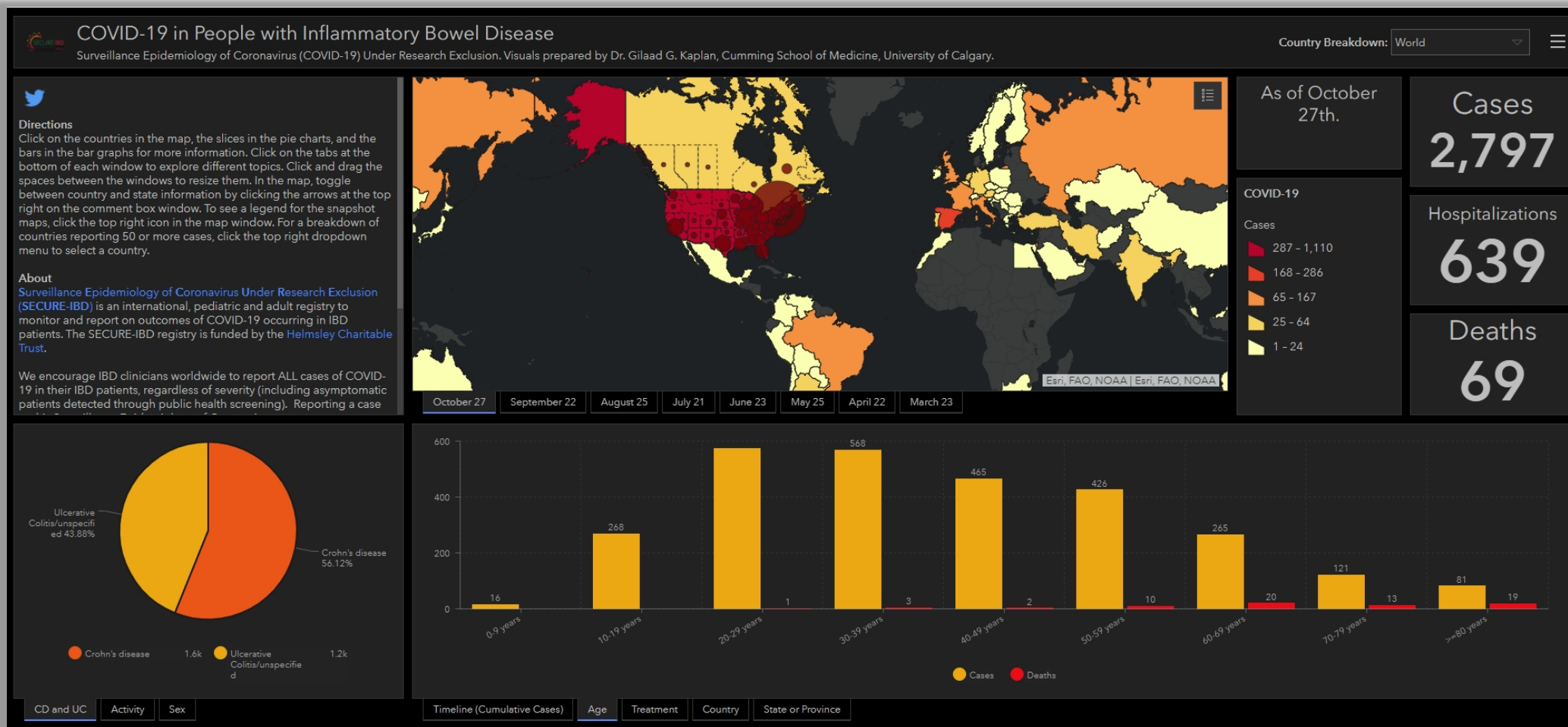
- You document endoscopic remission and she has been well since this time with recently documented therapeutic infliximab trough concentration and a normal fecal calprotectin.
- During your virtual visit you learn that Ms. Jones is suffering from acute anxiety and emotional distress in relation to the COVID-19 pandemic and its impact on her work, her children, and her personal mental health.

She has several questions for you

- She is perseverating, tearful, and very fearful.
 - What risk does my medication put me at for contracting SARS-CoV-2?
 - Will I get sicker if I contract SARS-CoV-2?
 - What is the risk to my children?
 - How can I control my COVID-related anxiety? I have tried but I think I need help with this. Is this normal? Are others feeling this way?
 - I am an elementary grade school teacher. Should I be going back to work? How can I protect myself if I do go back to the classroom? What do I tell my employer?



COVID-19 COHORT STUDIES





Ungaro, Brenner, et al., Gut;
ePub 2020 Oct 20.

- **1439 cases from 47 countries**
- **7.8% had 'severe' COVID-19**
- **Steroids strongly associated with severe**
 - **aOR 4.63, 95% CI 1.82-11.79**
- **Increased risk (REF anti-TNF monotherapy):**
 - **Thiopurine monotherapy: aOR 4.08, 95% CI 1.73-9.61**
 - **Combo: aOR 4.01, 95% CI 1.65-9.78**
 - **Any 5-ASA: aOR 3.52, 95% CI 1.93-6.45**



- **Any vs. no 5-ASA: aOR 1.70, 95% CI 1.26-2.29**
- **5-ASA users:**
 - Older
 - Less likely Black, more likely Asian or Hispanic
 - More likely UC
 - More likely on Steroids
 - Less likely on biologics
 - More likely to have comorbidities



- **209 pediatric patients from 23 countries**
- **14 patients hospitalized, 2 required ventilation**
- **5-ASA risk:**
 - **Adjusted for disease activity**
 - **aOR 4.2, 95% CI 1.3-14.1**

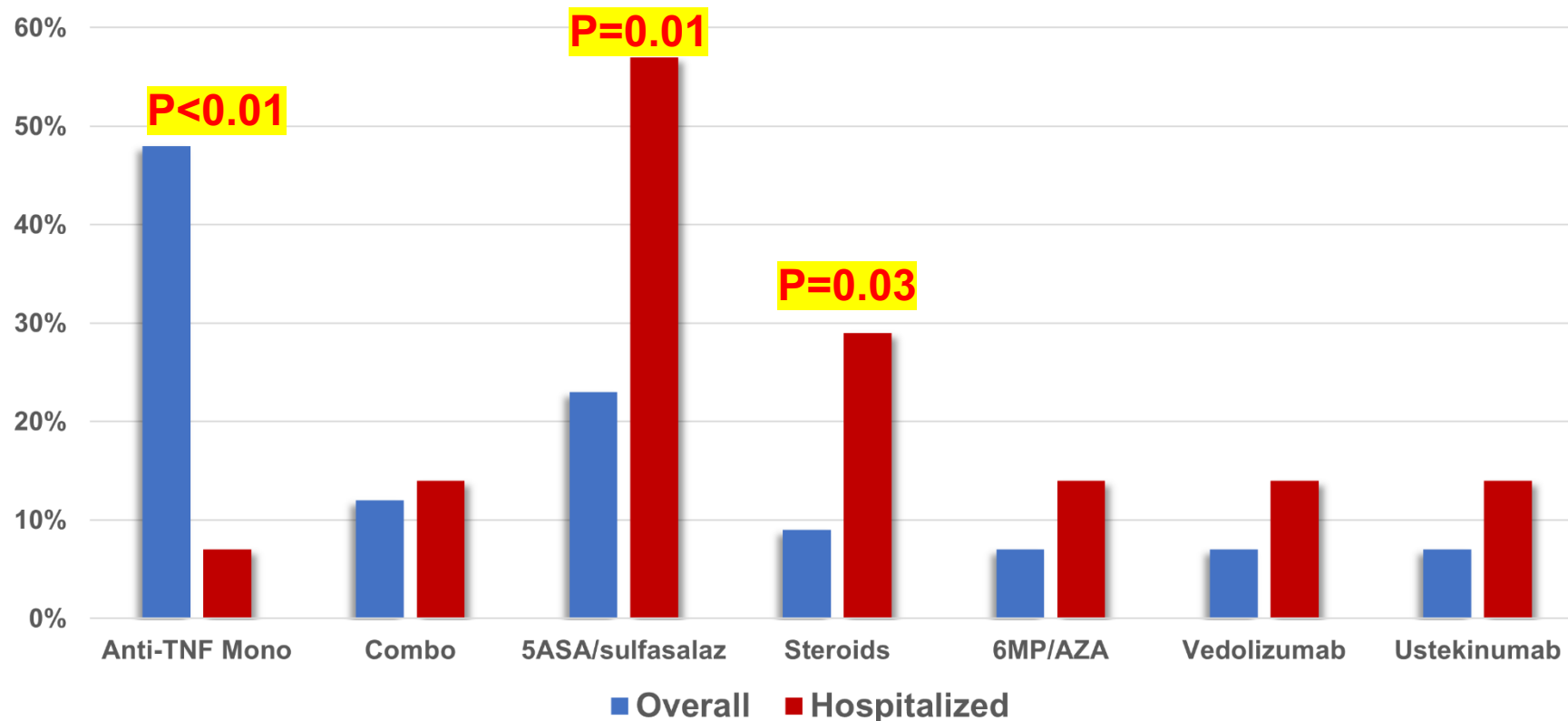


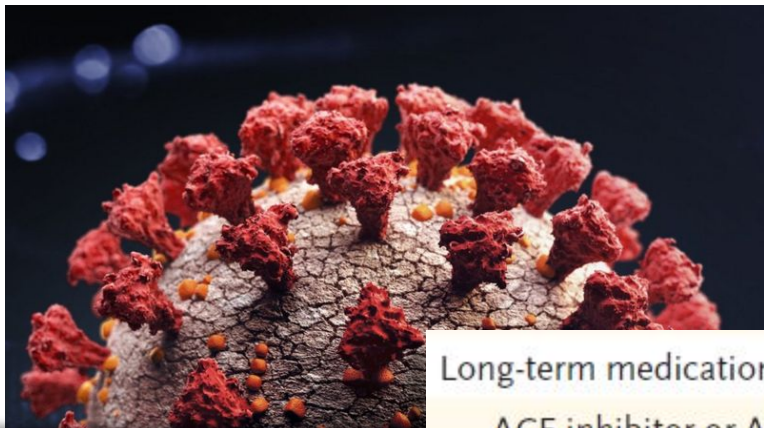
The Paediatric IBD Porto Group



ESPGHAN

Frequency of Medication Utilization Overall Cohort vs. Hospitalized





Covid-19 in Immune — Case

TO THE EDITOR: Data on Covid-19 in patients with immune-mediated inflammatory diseases who have received anticytokine biologics, other immunomodulatory therapies, or both on a case-by-case basis are scarce. Trials to assess the effects of antirheumatic therapies such as hydroxychloroquine¹ and anticytokine therapies such as interleukin-6 inhibitors² to improve outcomes in patients with Covid-19 are ongoing. The evidence for their use is that worse outcomes (intubation, ventilation, or death) may be associated with a proinflammatory cytokine storm.

Here, we report a prospective case series involving patients with known immune-mediated inflammatory disease (rheumatoid arthritis, psoriatic arthritis, ankylosing spondylitis, inflammatory bowel disease, or related conditions) who were receiving anticytokine biologics, other immunomodulatory therapies, or both when confirmed or highly suspected symptomatic.

Long-term medications — no. (%)

	All Patients (n=86)	Ambulatory (n=72)	Hospitalized (n=14)
ACE inhibitor or ARB	13 (15)	8 (11)	5 (36)
Any medication for primary IMID diagnosis	75 (87)	62 (86)	13 (93)
Methotrexate	17 (20)	11 (15)	6 (43)
Hydroxychloroquine	8 (9)	5 (7)	3 (21)
Oral glucocorticoids	8 (9)	4 (6)	4 (29)
Any biologic or JAK inhibitor	62 (72)	55 (76)	7 (50)
Tumor necrosis factor inhibitor	38 (44)	35 (49)	3 (21)
Interleukin-17 blocker	6 (7)	5 (7)	1 (7)
Interleukin-23 blocker	3 (3)	3 (4)	0
Interleukin-12/23 blocker	6 (7)	6 (8)	0
JAK inhibitor	6 (7)	5 (7)	1 (7)

available with the full text of this letter at NEJM.org). Of these patients, 62 of 86 (72%) were receiving biologics or Janus kinase (JAK) inhibitors.



Journal Pre-proof

Clinical Outcomes of CoVid-19 in Pa
and/or Methotrexate: A Multi-Center

Ahmed Yousaf, BA, Swapna Gayam, MD, Steve Feldman, MD, Zachary Zinn, MD,
Michael Kolodney, MD, PhD

PII: S0190-9622(20)32593-7

DOI: <https://doi.org/10.1016/j.jaad.2020.09.009>

Reference: YMJD 15198

To appear in: *Journal of the American Academy of Dermatology*

Article Contents

Abstract

Supplementary data

ACCEPTED MANUSCRIPT

Prevalence and outcomes of COVID-19 among patients with inflammatory bowel disease – A Danish prospective population-based cohort study

FREE

Mohamed Attauabi ✉, Anja Poulsen, Klaus Theede, Natalia Pedersen, Lone Larsen,
Tine Jess, Malte Rosager Hansen, Marianne Kajbæk Verner-Andersen, Kent V Haderslev,
Anders Berg Lødrup ... Show more

Journal of Crohn's and Colitis, jjaa205, <https://doi.org/10.1093/ecco-jcc/jjaa205>

Published: 09 October 2020 Article history ▼

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IBD Profile



RISK

65+ years OR

Under 65 years old, AND

- Oral or intravenous systemic corticosteroids ≥ 20 mg/day (or ≥ 0.5 mg/kg for children):
- Moderate/Severe active inflammation (new diagnosis or recent flare)
- Moderate or severe malnutrition
- Requirement of parenteral nutrition (intravenous nutrition through a central line)

Under 65 years old AND using immunosuppressives or biologics

- Immunomodulators: azathioprine (Imuran), 6-mercaptopurine (Purinethol), methotrexate
- Anti-TNF biologics: infliximab (Remicade[®], Inflectra[®], Renflexis[™]), adalimumab (Humira[®]), golimumab (Simponi[®])
- Anti-IL12/23 biologics: ustekinumab (Stelara[®])
- Anti-leukocyte migration biologics: vedolizumab (Entyvio[®])
- JAK inhibitor small molecules: tofacitinib (Xeljanz[®])

Under 65 years old AND NOT TAKING immunosuppressive or biologic medications, AND

- IBD in remission, no significantly active inflammation
- Not malnourished
- No comorbidities (respiratory, cardiac, hypertension, diabetes)

**HIGH
RISK**

- Self-isolate
- Considerations for other family members:
 - Try to avoid in-person meetings
 - Try to work from home. If not possible, speak to your employer about physical distancing at work
 - Use services for vulnerable people
 - Clean your residence - avoid transmission

**MEDIUM
RISK**

- Avoid in-person meetings
- If possible, work at home and hold meetings with virtual technology
- If not possible, talk to your physician, and discuss options with your employer for modified duties
- Use services for vulnerable people to avoid contact with other people

**Follow Public Health
(PHAC) Guidelines**

Follow public health guidelines for general population
(physical distancing, hand hygiene, self-monitoring, etc.)



Case 2. Mr. Smith

Setting the scene: It is October 2020, and a resurgence of COVID-19 has begun with demonstrated community transmission in your province. You are seeing Mr. Smith virtually.

- Mr. Smith is a 74 year-old male who you diagnosed as having moderately severe pan-ulcerative colitis 6 months previously.
 - He has medical comorbidities consisting of HTN, obesity, and dyslipidemia.
 - He had recently quit smoking just before his diagnosis.
 - He was steroid refractory and started on vedolizumab which has been effective for induction and maintenance of steroid-free remission.

Case 2 cont'd . . .

- You learn that Mr. Smith lives in a COVID “hot spot” and has been moving about freely in his community within both indoor and outdoor venues and spaces
- Mr. Smith says that he is “sick and tired” of COVID-19. He wants to get back to a normal life and feels that the overall risk of SARS-CoV-2 is “overblown”
- How do you respond to Mr. Smith’s concern?

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References

- Higgins PDR, Ng S, Danese S, Rao K. The Risk of SARS-CoV-2 in Immunosuppressed IBD Patients. *Crohn's & Colitis* 360. 2020;2(2).
- Neurath MF. Covid-19 and immunomodulation in IBD. *Gut*. 2020.
- Rubin DT, Feuerstein JD, Wang AY, Cohen RD. AGA Clinical Practice Update on Management of Inflammatory Bowel Disease During the COVID-19 Pandemic: Expert Commentary. *Gastroenterology*. 2020.
- <https://crohnsandcolitis.ca/COVID19>
- Brenner, E. J., et al. (2020). "Corticosteroids, But Not TNF Antagonists, Are Associated With Adverse COVID-19 Outcomes in Patients With Inflammatory Bowel Diseases: Results From an International Registry." *Gastroenterology* **159**(2): 481-491.