Let me know if you need further assistance.
Kathy

From: Kevin Hofstede   21
Sent: Friday, December 11, 2020 10:44 AM
To: Drug Info AHS <DrugInfoAHS@albertahealthservices.ca>
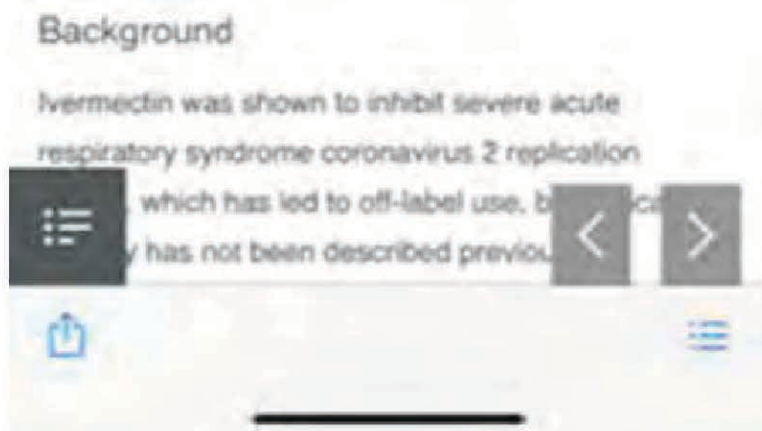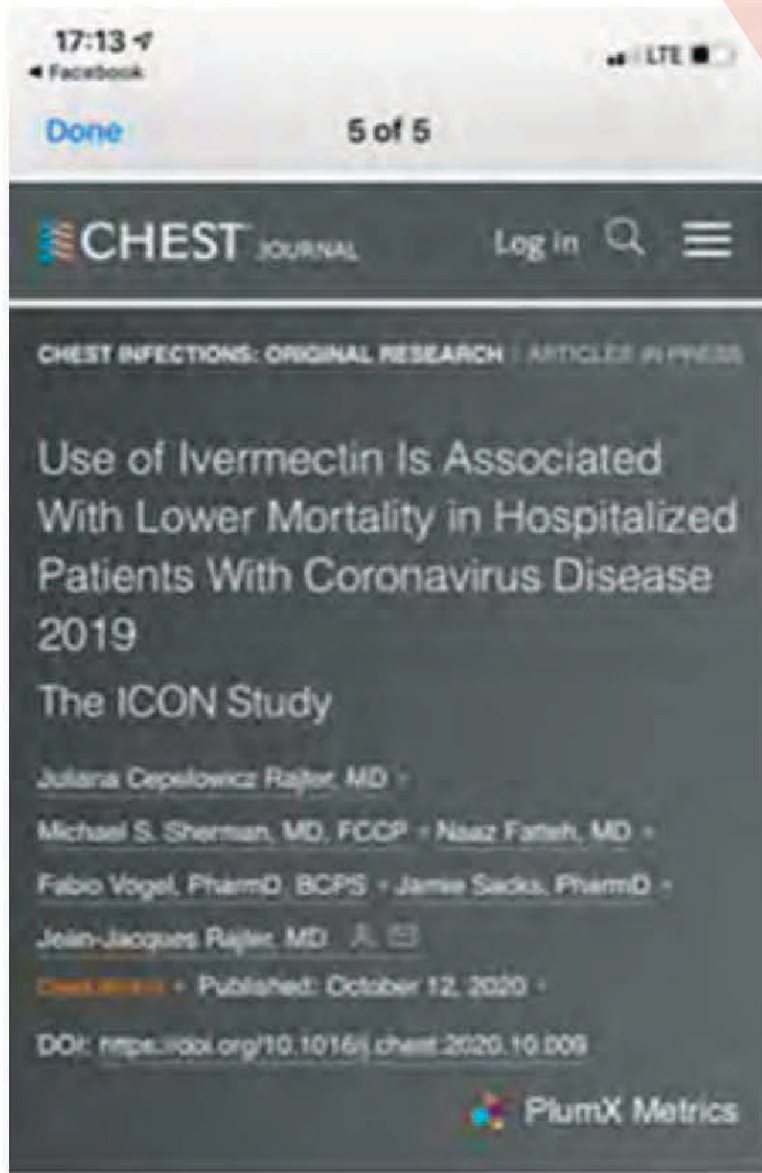**Subject:** Ivermectin?

Good Morning Drug Info,

I have had a number of my physicians ask for Ivermectin for COVID use based on some information flying out there, 2 sources of which I was sent and have included below. I wondered if you knew of any work looking into this, as it is not currently a utilization in the formulary and I don't want to approve something that may not have been reviewed or deemed ineffective/harmful.

Thanks for the help and enjoy your Friday.

Cheers,

Kevin

Derek Wojtas

From:	Jeremy Slobodan
Sent:	Monday, December 14, 2020 4:52 PM
To:	Duncan Steele; Al-Noor Nenshi Nathoo; Tracey Simpson; 'lynora.saxinger@ualberta.ca'; John Conly; Robert Vretenar; Alain Tremblay; Gerald Lazarenko; Janis Sasaki; Alain Tremblay-fwd; Katherine Duthie; Tony Nickonchuk; Susan Fryters; 'KarenD'; 'Michael Parkins'; Holly Hoang; 'wsligl@ualberta.ca'; Wendy Sligl; ked1@ualberta.ca; Cameron Black
Subject:	Ivermectin - COVID-19 Therapeutics WG

Hi Everyone,

We had a request out of North Zone to stock ivermectin to use to treat COVID-19 patients. We have been asked to look at this.

My focused question for you is the following: ***Do you want to meet to discuss the evidence for ivermectin or do you have enough information attached to make a recommendation?*** While I believe this is straightforward, I do want to ensure that we are fair in our process.

If you can provide me an answer by end of day Wednesday, December 16th, we will sort out next steps.

Background information

Cameron (Pharm D student) found the following articles

ICON Study (October 2020) : https://pubmed.ncbi.nlm.nih.gov/33065103/
In vitro study (Jun 2020): https://www.sciencedirect.com/science/article/pii/S0166354220302011?via%3Dihub

As well our drug information team provided the following information to an ivermectin question last week:

Currently as of December 11, 2020 in the Clinical Trials.gov registry website, there are 43 clinical trials of ivermectin for the treatment of COVID-19.

https://www.clinicaltrials.gov/ct2/results?cond=covid19&term=ivermectin&cntry=&state=&city=&dist=

The National Institutes of Health's COVID 19 guidelines recommend against using ivermectin in COVID 19 unless it is in a clinical trial. (updated November 3, 2020)
https://www.covid19treatmentguidelines.nih.gov/antiviral-therapy/

Ivermectin
The Panel **recommends against** the use of **ivermectin** for the treatment of COVID-19, except in a clinical trial **(AIII)**.
Rating of Recommendations: A = Strong; B = Moderate; C = Optional
Rating of Evidence: I = One or more randomized trials with clinical outcomes and/or validated laboratory endpoints; II = One or more well-designed, nonrandomized trials or observational cohort studies; III = Expert opinion

Thank you,

Derek Wojtas

From:	Jeremy Slobodan
Sent:	Monday, December 14, 2020 5:01 PM
To:	s.17(1)
Cc:	Kevin Hofstede; Guy Lacombe; Lynora. Saxinger@Ualberta. Ca (lynora.saxinger@ualberta.ca); John Conly; Gerald Lazarenko
Subject:	ivermectin
Attachments:	Ivermectin - COVID-19 Therapeutics WG

Dr. Birkill,

I am in receipt of your request to consider ivermectin in the treatment of COVID-19 patients. I've attached the request that I have put forward to the group for consideration.

Here is their Current Guidance for the Management of Adult Hospitalized Patients with COVID-19: https://www.albertahealthservices.ca/assets/info/ppih/if-ppih-covid-19-recommendations.pdf that was approved by the Emergency Coordination Centre for AHS and should be followed for the treatment of COVID-19 patients admitted to AHS.

I will note, the study you has been noted to us (ICON) was released in October of 2020. Since then, NIH has updated their treatment guidelines, noting:
The Panel **recommends against** the use of **ivermectin** for the treatment of COVID-19, except in a clinical trial **(AIII)**.
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As well, we cannot find a treatment guideline updated since the ICON trial was released that recommends the use of ivermectin in COVID-19 patients.

After I hear back from the Working Group, I will follow up with you Thursday to outline next steps.

Thank you,

Jeremy Slobodan, BSP
Director, Drug Utilization, Information & Stewardship
Pharmacy Services
Red Deer Regional Hospital Centre
Office (403)352-7648
Cell (403)357-4775
Skype (587)774-1111
jeremy.slobodan@ahs.ca
Alberta Health Services
www.albertahealthservices.ca

Derek Wojtas

From:	Alain Tremblay <atrembla@ucalgary.ca>
Sent:	Monday, December 14, 2020 8:15 PM
To:	Jeremy Slobodan
Subject:	RE: Ivermectin - COVID-19 Therapeutics WG

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Unfortunately at this time this is a longshot, with no good RCT evidence. Should not be endorsed in AB in my opinion.
Alain

From: Jeremy Slobodan <Jeremy.Slobodan@albertahealthservices.ca>
Sent: December 14, 2020 4:52 PM
To: Duncan Steele <Duncan.Steele@albertahealthservices.ca>; Al-Noor Nenshi Nathoo <Al-Noor.NenshiNathoo@albertahealthservices.ca>; Tracey Simpson <Tracey.Simpson@albertahealthservices.ca>; 'lynora.saxinger@ualberta.ca'; John Conly (AHS) <john.conly@albertahealthservices.ca>; Robert Vretenar <Robert.Vretenar@albertahealthservices.ca>; Alain Tremblay <Alain.Tremblay@albertahealthservices.ca>; Gerald Lazarenko <Gerald.Lazarenko@albertahealthservices.ca>; Janis Sasaki <Janis.Sasaki@albertahealthservices.ca>; Alain Tremblay <atrembla@ucalgary.ca>; Katherine Duthie <Katherine.Duthie@albertahealthservices.ca>; Tony Nickonchuk <Tony.Nickonchuk@albertahealthservices.ca>; Susan Fryters <Susan.Fryters@albertahealthservices.ca>; 'KarenD' <karen.doucette@ualberta.ca>; Michael Parkins <mdparkin@ucalgary.ca>; Holly Hoang <Holly.Hoang@covenanthealth.ca>; 'wsligl@ualberta.ca' <wsligl@ualberta.ca>; Wendy Sligl <Wendy.Sligl@albertahealthservices.ca>; ked1@ualberta.ca; Cameron Black <cblack@ualberta.ca>
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Derek Wojtas

From:	Lynora Saxinger <saxinger@ualberta.ca>
Sent:	Tuesday, December 15, 2020 12:09 AM
To:	Jeremy Slobodan
Subject:	Re: Ivermectin - COVID-19 Therapeutics WG

Caution - This email came from an external address and may contain unsafe content. Ensure you trust this sender before opening attachments or clicking any links in this message.

I can't make this email send- so I'm trying just to you I'm wondering if it's one of the email addresses.

There's tremendous misinformation (including from Fox News and Danielle Smith) going on which is fuelling massive enthusiasm (a lot of "miracle cure" discussion.). In reality- in vitro data, and some rather (very) poor trial data. There are studies ongoing.

It's a medication does not meet our standards for inclusion in a therapeutic guideline and it would be inappropriate to make it available outside a clinical trial.

ASHP evidence synthesis is usually up to date: as follows

In vitro activity against some human and animal viruses 1-6
In vitro evidence of activity against SARS-CoV-2 in in- fected Vero-hSLAM cells reported with high concentrations of the drug 1
Only limited clinical data to date evaluating use in the treatment of COVID-19
Pilot observational study comparing effica- cy of add-on ivermectin in pts with mild to moderate COVID-19 (not peer reviewed): A total of 16 pts received a single dose of oral ivermectin (0.2 mg/kg) given on the day of hospital admission in addition to initiation of treatment with hydroxychloro- quine and azithromycin, and results were compared with 71 pts who received hy- droxychloroquine and azithromycin alone (matched controls). The primary outcome was percentage of pts cured (defined as symptoms free to be discharged from the hospital and 2 consecutive negative PCR tests from nasopharyngeal swabs at least 24 hours apart) within 23 days. The investi- gators reported that all 16 pts who re- ceived ivermectin were cured compared with 97% of pts who did not receive iver- mectin and the mean duration of hospitali- zation was shorter in the ivermectin group (7.6 days) than in the control group (13.2 days). Note: These results need to be vali- dated in a larger prospective trial. 11
Retrospective observational evaluation of COVID-19 pts treated with ivermectin (not peer reviewed): Outcome data for 173 pts with confirmed COVID-19 who received at least one dose of oral ivermectin (0.2 mg/ kg) at any time during hospitalization, at the discretion of the treating physician, in addition to usual care were compared with outcome data for 107 pts who received usual care. The primary outcome measure was all-cause in-hospital mortality. The investigators reported that overall mortality was lower in the ivermectin group (15%) than in the group not treated with ivermectin (25.2%); there was no difference in duration of hospitalization between the groups (median of 7 days for both groups). Note: The effect of ivermectin on viral load was not evaluated and the impact of confounding factors in these patients (e.g., time from diagnosis to initiation of treatment, differences in drugs used for standard care and variances in clinical benefits of such drugs) is not known.

Various clinical trials evaluating ivermectin for the treatment or prevention of COVID- 19 are registered at
clinicaltrials.gov 10