INESSS
LE SAVOIR PREND FORME

MARCH 2019

Guide to preventing and treating chemotherapy or radiotherapy-induced nausea and vomiting in adults

English summary

Une production de l'Institut national d'excellence en santé et en services sociaux (INESSS)

Direction des services de santé et de l'évaluation des technologies

Québec

This is the English summary of the guidance entitled Guide pour la prévention et le traitement des nausées et vomissements induits par la chimiothérapie ou la radiothérapie chez l'adulte published in March 2019.

The complete version of this guidance (in French) is available on the website of INESSS in the Publications section.

Membres de l'équipe projet

Auteurs

Dominique Arsenault, Ph. D.
Karine Almanric, B. Pharm., M. Sc., BCOP
Amélie Chartier, B. Pharm., M. Sc., BCOP
Nathalie Letarte, B. Pharm., M. Sc., DESG, BCOP
Mélanie Simard, B. Pharm., M. Sc., BCOP

Coordination scientifique

Jim Boulanger, Ph. D.

Directrice

Michèle de Guise, M.D., FRCPC

Repérage d'information scientifique

Caroline Dion, M.B.S.I., *bibl. prof.*
Mathieu Plamondon, M.S.I.
Lysane St-Amour, M.B.S.I.
Julien Chevrier, M.S.I.
Flavie Jouandon, *tech. doc.*

SUMMARY

Background and objectives

The antineoplastic agents and radiotherapy used to treat cancer can cause nausea and vomiting. Chemotherapy induced nausea and vomitting (CINV) or radiotherapy (RINV) are among the adverse effects that cancer patients fear most. They can have significant sequelae that compromise their quality of life. It is therefore essential to integrate all the current practices for preventing and treating CINV and RINV.

The administration of 5-HT_3 serotonin receptor antagonists, corticosteroids and neurokinin-1 receptor antagonists has significantly advanced the prevention and control of these adverse effects. In 2012, the Comité de l'évolution de la pratique en oncologie (CEPO) published an update of a first report, entitled "Prévention et traitement des nausées et vomissements induits par la chimiothérapie ou la radiothérapie chez l'adulte". Since then, updates of practice guidelines on preventing CINV and RINV have been published by different organizations. The Ministère de la Santé et des Services sociaux (MSSS) asked the Institut national d'excellence en santé et en services sociaux (INESSS) to update the best practices regarding the prevention and treatment of CINV and RIVN.

Methodology

The scientific information was based mainly on clinical practice recommendations and expert consensus statements published by the three main organizations that issue guidelines on the prevention and treatment of CINV and RINV, namely, the American Society of Clinical Oncology (ASCO), the Multinational Association of Supportive Care in Cancer (MASCC) and the National Comprehensive Cancer Network (NCCN). ASCO updated its guidelines in 2017. They are based on the scientific literature available up to June 2016. Those published by the MASCC in 2017 are based on the scientific literature available up to June 2015. When the ASCO and MASCC guidelines seemed insufficient, those of the NCCN, which were updated in 2018, were consulted. An additional search was conducted in the MEDLINE (via the PubMed interface), Embase and Cochrane Library databases. The period covered by the update of this report is from 2013 to January 2019.

Results

New drugs

The practice guideline updates include two novel antiemetics. Even though it has not received a Health Canada notice of compliance for this indication, olanzapine has been added for the prevention of CINV in cases where high-emetogenic-potential chemotherapy is administered. As well, the combination of netupitant and palonosetron, or NEPA, is administered prophylactically to prevent acute and delayed CINV in patients who receive high-emetogenic-potential chemotherapy.

Best practices synthesis and proposed adaptation for practice in Québec

A summary of the best clinical evidence from practice guidelines was examined by a multidisciplinary committee of experts practicing in the field of oncology. The summary was adapted to the Québec context for the prevention and treatment of chemotherapy- or radiotherapy-induced nausea and vomiting.

Chemotherapy

NVIC with high emetogenic potential

- Acute phase (0 – 24 hrs): combination of a 5-HT_3serotonin receptor antagonist, dexamethasone, an NK-1 receptor antagonist and olanzapine.
- Delayed phase (24 hrs or longer): combination of dexamethasone and olanzapine. If the NK-1 receptor antagonistaprepitant is administered on day 1, it is recommended that it be continued on days 2 and 3.

NVIC with moderate emetogenic potential

- Acute phase (0 – 24 hrs): combination of a 5-HT_3serotonin receptor antagonist and dexamethasone.
- Delayed phase (24 hrs or longer): dexamethasone should be considered if the chemotherapy is known to cause delayed CINV.

NVIC with low emetogenic potential

- Acute phase (0 – 24 hrs): the administration of dexamethasone or, as an alternative, a 5-HT_3serotonin receptor antagonist, prochlorperazine or metoclopramide.
- Delayed phase (24 hrs or longer): no prophylaxis.

NVIC with very low emetogenic potential

- Acute and delayed phases: no prophylaxis.

Specific situations

- High-dose chemotherapy: combination of a 5-HT_3serotonin receptor antagonist, dexamethasone and aprepitant as prophylaxis.
- Chemotherapyover several days: the choice of antiemetics is made on a day-to-day basis according to the emetogenic potential of the chemotherapy regimen. Thus, depending on the emetogenic potential of the chemotherapy agents, treatment containing a 5-HT_3serotonin receptor antagonist and dexamethasone might be administered (the addition of an NK-1 antagonist is recommended in cases where cisplatin-based chemotherapy is administered).
- Uncontrolled or refractory CINV: reassess the emetogenic risk. If the symptoms persist, the recommendation is to add olanzapine, or a drug from a different class (lorazepam, an antidopaminergic or nabilone) if olanzapine was administered previously, in addition to continuing the antiemetic medication already prescribed.

- Oral chemotherapy: for chemotherapy agents with moderate to high emetogenic potential, a 5-HT_3serotonin receptor antagonist, administered orally, is recommended. For chemotherapy agents with low or very low emetogenic potential, a 5-HT_3serotonin receptor antagonist, administered orally, or metoclopramide or prochlorperazine, is recommended only as needed.
- Anticipatory nausea and vomiting: consideration might be given to lorazepam 0.5-2 mg, to be taken the evening before the chemotherapy and repeated 1 to 2 hours before the chemotherapy. Behavioural therapy is also an option.

Radiotherapy

NVIR with high emetogenic potential

- The administration of a 5-HT_3serotonin receptor antagonistin combination with dexamethasone is recommended before each fraction and the day following the fraction if no radiotherapy is planned.

NVIR with moderate emetogenic potential

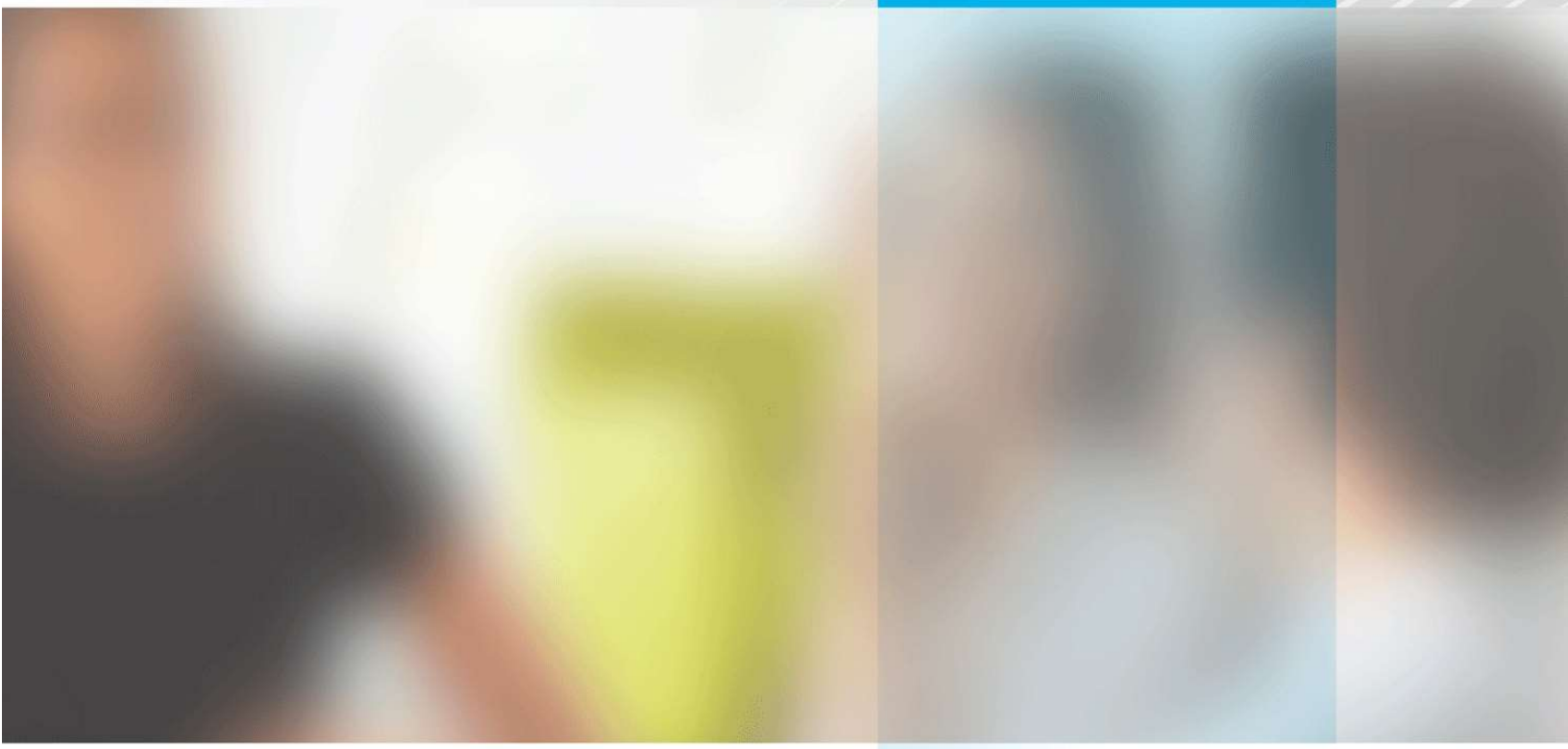
- The administration a 5-HT_3serotonin receptor antagonistis recommended. The addition of dexamethasone for the first five fractions is optional.

NVIR with low or very low emetogenic potential

- Rescue therapy with dexamethasone, a 5-HT_3serotonin receptor antagonistor an antidopaminergic is recommended.

Prophylaxis before combined radiotherapy and chemotherapy

- The premedication should be determined on the basis of the emetogenic potential of the chemotherapy, unless that of the radiotherapy is higher.



Siège social

2535, boulevard Laurier, 5e étage
Québec (Québec) G1V 4M3
418 643-1339

Bureau de Montréal

2021, avenue Union, 12e étage, bureau 1200
Montréal (Québec) H3A 2S9
514 873-2563
inesss.qc.ca

Institut national d'excellence en santé et en services sociaux
Québec