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# EVALUATING THE 2023 MASCC/ESMO GUIDELINE UPDATE FOR THE PREVENTION OF CHEMOTHERAPY-INDUCED NAUSEA AND VOMITING AND ITS CLINICAL APPLICATION


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## ABSTRACT


Beyond the recommendations of the updated MASCC/ESMO Antiemesis Guidelines in 2023, there are some issues in clinical practice that remain unanswered. Some of them are the following:

1. What individual risk factors mean MEC becomes HEC?
2. When should a second agent be added to patients receiving LEC?
3. How to manage CINV in patients treated with new ADCs?
4. How should long delayed CINV be managed?
5. How should CINV be managed in patients receiving oral agents?


## ABBREVIATIONS

| | |
|---|---|
| **ADC** | antibody-drug conjugate |
| **CINV** | chemotherapy-induced nausea and vomiting |
| **HEC** | highly emetogenic chemotherapy |
| **5-HT$_3$-RA** | 5-hydroxytryptamine3-receptor antagonist |
| **LEC** | low emetogenic chemotherapy |
| **MEC** | moderately emetogenic chemotherapy |
| **NK$_1$-RA** | neurokinin-1 receptor antagonist |

## INTRODUCTION

The 2016 MASCC/ESMO guidelines for the prevention of chemotherapy- and radiotherapy-induced nausea and vomiting (CINV) were updated in 2023 by a Consensus Committee consisting of 34 multidisciplinary international health care professionals and three patient advocates. These Guidelines collect the last evidence of the main questions related to emesis. But there are some aspects that require an answer to help clinicians in daily clinical practice.

## METHODS AND MATERIALS

Across a series of meetings, we evaluated these guidelines to identify any possible evidence gaps and unaddressed aspects in daily clinical practice which warrant further discussion. Five questions were identified and some recommendations were done.

## RESULTS, DISCUSSION AND CONCLUSIONS

### 1. What individual risk factors mean MEC becomes HEC?

- A range of **factors** have been identified:
  1. Age
  2. Female sex
  3. Anxiety
  4. History of motion sickness or nausea during pregnancy
  5. Prior treatments
  6. Inadequate sleep before chemotherapy
  7. Duration of CINV
- **Emesis risk calculators** to estimate individual risk may be helpful

### 2. When should a second agent be added to patients receiving LEC?

- If CINV control is inadequate with initial monotherapy, **switching to an alternative agent** should be considered
- In patients with poor control of CINV in the previous cycle, the **prophylaxis regimen recommended for the MEC** could be an option
- Overtreatment may be a concern, and the addition of a **second agent** might **only** be considered **if it addresses a particular issue**

### 3. How to manage CINV in patients treated with new ADCs?

- ADCs may be associated with a **novel pattern** of CINV, with **onset of nausea at around 2-3 days and vomiting at around 10 days** and the risk remaining high throughout each cycle
- A **two-drug regimen** may be sufficient, although **triple therapy** of 5-HT$_3$-RA, a NK$_1$-RA and dexamethasone **will be needed**
- **Anti-emetics with longer half-life** and/or longer protection may be an appropriate option

### 4. How should long delayed CINV be managed?

- The **entire CINV risk period** and not just the initial 24 hours or even 120 hours should be considered
- **Properties** of **anti-emetics**, such as **half-life** and **duration of effect**, may be relevant
- **Addition** of an **NK$_1$-RA** to 5-HT$_3$-RA and dexamethasone may reduce CINV over a 7-day period versus 5-HT$_3$-RA plus dexamethasone

### 5. How should CINV be managed in patients receiving oral therapies?

- **Data** on the emetic risk potential of oral anticancer agents **are very limited**
- **Guidance** is based on the use of **on-demand antiemetics**, typically, a combination of :
  - **5-HT$_3$-RA (days 1–7)**
  - **dexamethasone (days 1–3)**
- If this is inadequate, consider the addition of an **NK$_1$-RA**
- **Multiple dosing** could also be an option

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