Standardising anti-emetics for palliative radiotherapy patients.

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Introduction

Radiation induced nausea and vomiting (RINV) is often underestimated by oncology teams and can effect between 50-80% or radiotherapy patients [1]. This can have a negative impact in quality of life and may discourage patient from further radiotherapy (RT). Incidence and severity depend on RT related factors such as dose, body site and also patient related factors such as general health, age (<55), gender (F), anxiety and previous RINV or CINV) [2]. Giving the patient a prophylactic anti-emetic prior to RT can help prevent RINV.

The palliative planning advanced practitioner (AP) observed that not all patients at risk of RINV were given anti-emetics and there had been incidences of patients vomiting shortly after RT. Also the doctors and review team availability to supply anti-emetics was limited.

"Nausea is one of the most widely feared symptoms and it is ranked among the most incapacitating side effects experienced during cancer treatment" [3]

Aim

To ensure that all palliative patients at risk of RINV consistently receive anti-emetics (ondansetron) prior to radiotherapy.

Service Implementation

- Patient group directive (PGD) training was completed by the advanced practitioner so anti-emetics could be dispensed without prescription.
- Guidance documents produced, including diagrams (see Fig . 1.) and lists of body sites (see Fig. 2.) vulnerable to RINV, for radiographers to refer to.
- Document sent to oncologists for consultation and agreement.
- Relevant staff groups informed of the proposed changes in procedure.
- Anti-emetics provided to the patient at their CT planning appointment by AP.
- Further checks are imbedded into the palliative pathway to ensure anti-emetics have been supplied.

Fig. 1.

RISK LEVEL	RADIOTHERAPY
High risk	TBI (not practiced at NNUH)
Moderate risk	Lower thoracic spine (inferior to T9). Pancreas, Stomach, liver, distal oesophagus (OGD junction), gallbladder, duodenum, lumbar spine, kidney, spleen, para aortic lymph nodes. Large palliative fields with minimal MLC shielding. E.g. rectum, hemi pelvis, endometrium. Sacrum.
Low risk	Pelvis, brain. Upper thorax i.e. above diaphragm.
Minimal risk	Other sites e.g. limbs, breast.

Fig. 2.

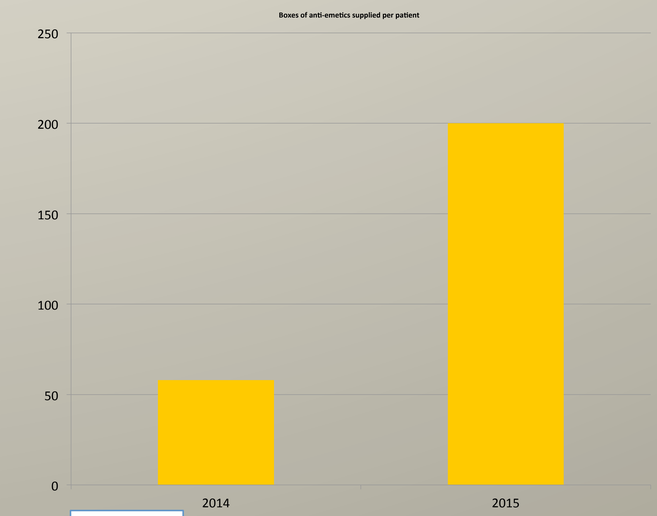

Fig. 3.

Discussion

- Providing informal presentations to staff prior to implementing this process, particularly challenging dated beliefs on RINV, would have been useful.
- Looking ahead it would be beneficial to follow up the patients who received ondansetron via telephone to discuss the effectiveness of the anti-emetics and advice given.
- Long term telephone follow ups would provide valuable data to ensure we are not excluding any body sites which could be prone to RINV.
- PGD needs revising to increase the number of staff members who can dispense ondansetron.
- Recommend departments conduct an audit of RINV patient experience to highlight the body sites which may be vulnerable to this side effect before implementing service change.

- **Although the number of palliative referrals were similar in number for 2014 (1038 referrals) and 2015 (1013 referrals) , the number of anti-emetics dispensed per patient via the PGD has increased from 58 boxes in 2014 to 200 in 2015 (see Fig. 3). This illustrates that the service implementation has been successful.**

References.
[1] Feyer P, Jahn F, Jordan K. Radiation induced nausea and vomiting. European journal of pharmacology. 2014 Jan 5;722:165-71.
[2] Urba S. Radiation-induced nausea and vomiting. Journal of the National Comprehensive Cancer Network. 2007 Jan 1;5(1):60-5.
[3] Enblom A, Axelsson BB, Steineck G, Hammar M, Börjeson S. One third of patients with radiotherapy-induced nausea consider their antiemetic treatment insufficient. Supportive Care in Cancer. 2009 Jan 1;17(1):23-32.

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