Chemotherapy patients have an increased risk of foodborne illnesses due to immunosuppression. Indeed, cancer patients are reported to have a fivefold increased risk for development of listeriosis. Therefore, to minimise the risk of foodborne illness it is important that cancer patients’ consume foods prepared/stored at home according to recommendations and avoid associated food products to ensure food safety.

Personal invulnerability and perception of current behaviours endangering health is reported to decrease implementation of risk-reducing behaviours. However, research detailing cancer patients and family caregivers perceptions and awareness of food safety during chemotherapy is currently lacking. Consequently, this study aims to establish patients and family caregivers awareness of foodborne illness risk during chemotherapy in conjunction with reported receipt of educational materials. Such data will increase understanding of perceptions and aid development of future targeted food safety communication approaches.

This study aims to determine the food safety awareness of chemotherapy patients and family caregivers, their perceptions of risk, control and responsibility, and self-reported receipt of food safety information during chemotherapy.

A self-complete questionnaire (online and paper-based) was completed by chemotherapy patients (70%) and caregivers (30%) responsible for food-preparation (n=172).

Information regarding food safety for cancer patients was determined to be insufficient and sought to aid development of future targeted food safety communication approaches.

Although perceived risk increased during chemotherapy, increases in perceptions of control may indicate the illusion of control among patients and caregivers, suggesting that patients and caregivers may not take sufficient measures to safeguard food during domestic food preparation to reduce the risks associated with foodborne illness.

Correlations were determined for perceptions of risk, control, responsibility and hygiene consciousness (Table 2), those perceived the greatest levels of risk, control and responsibility were most likely of perceiving themselves of having the greatest levels of hygiene consciousness. Those with a greater level of perceived responsibility had a greater level of perceived control. Those perceived to have the greatest levels of risk perceived to have the greatest levels of control.

Figure 1. Recall of health related information received during chemotherapy (n=130)

Significant differences in perceptions of food safety risk, control and responsibility during chemotherapy were determined between those that recalled receiving food safety information (receivers) and those that did not recall receiving food safety information (non-receivers):

- **RISK**: Significantly greater among receivers (Mdn=3, M:4.1) than non-receivers (Mdn=1, M:3.3) (U=1531.5, z=2.097, p<0.05, r=0.2).
- **CONTROL**: Significantly greater among receivers (Mdn=2, M:2.3) than non-receivers (Mdn=2, M:2.1) (U=1549.0, z=2.077, p<0.05, r=0.2).
- **HYGIENE CONSCIOUSNESS**: Receivers (Mdn=1, M:1.6) significantly greater than non-receivers (Mdn=1, M:2.3) (U=1511.0, z=2.562, p<0.01, r=0.2).
- **RESPONSIBILITY**: No significant differences in perceived responsibility for food safety between receivers and non-receivers (p>0.05).

**Significance of the study**

- Information regarding food safety for cancer patients and family caregivers was considered to be insufficient and sought after.
- Despite increased perception of the risk of foodborne illness during chemotherapy, changes in food safety practices during chemotherapy were lacking. Patients and family caregivers indicated perceived personal invulnerability and illusion of control.
- Provision of food safety information to patients at greatest risk increase hygiene consciousness and perceptions of risk and control.
- Data will inform the development of targeted food safety risk communication for chemotherapy patients and family caregivers.

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**References and acknowledgements**

1. Tenovus Cancer Care Global

This project has received funding from: