



# Natural Health Products in Acute Leukemia and Hematopoietic Stem Cell Transplantation: A Comparison of Attitudes and Practices Among Health Care Practitioners



Anna Yee, B.Sc.(Pharm); Katie Lacaria, B.Sc.(Pharm), ACPR; Wendy Cheng, B.Sc.(Pharm), ACPR; Stephanie Woo, B.Sc.(Pharm), ACPR

## Background

- Natural health product (NHP) use is increasing among cancer patients
  - Prevalence up to 45% among patients with hematological cancers
- NHPs in the acute leukemia and hematopoietic stem cell transplant (L/HSCT) setting is concerning
  - NHPs may have immune modulating effects, direct toxicities, and drug interactions, with chemotherapy or supportive care medications
  - Patients are at high risk for infection from their highly immunocompromised state
- Guidelines recommend health care professionals follow certain steps when managing NHPs
- Practitioners' attitudes of their responsibilities in managing NHP use, and current practices around NHP management are unknown in the L/HSCT setting

## Objectives

### Primary

- To compare attitudes about professional responsibilities and current professional practices among health care professionals in L/HSCT
- To identify possible barriers to managing NHP in L/HSCT

### Secondary

- To identify differences in the management of NHPs among genders, years of practice and across Canada

## Methods

**Design:** Electronic sample survey using UBC Survey Tool

### Inclusion criteria:

- Physicians, registered nurses and pharmacists
- Practicing in Canadian L/HSCT centres
- Members of the Canadian Bone Marrow Transplant Group (CBMTG) & Leukemia and Bone Marrow Transplant (L/BMT) pharmacist network group

**Exclusion criteria:** Incomplete surveys

### Questionnaire:

- Developed and modified based on pilot testing
- Themes: attitudes, professional practices, barriers
- Distributed via e-mail with two reminder emails

**Study dates:** 30-day period from January 19 to February 17, 2017

**Statistical analysis:** Descriptive statistics

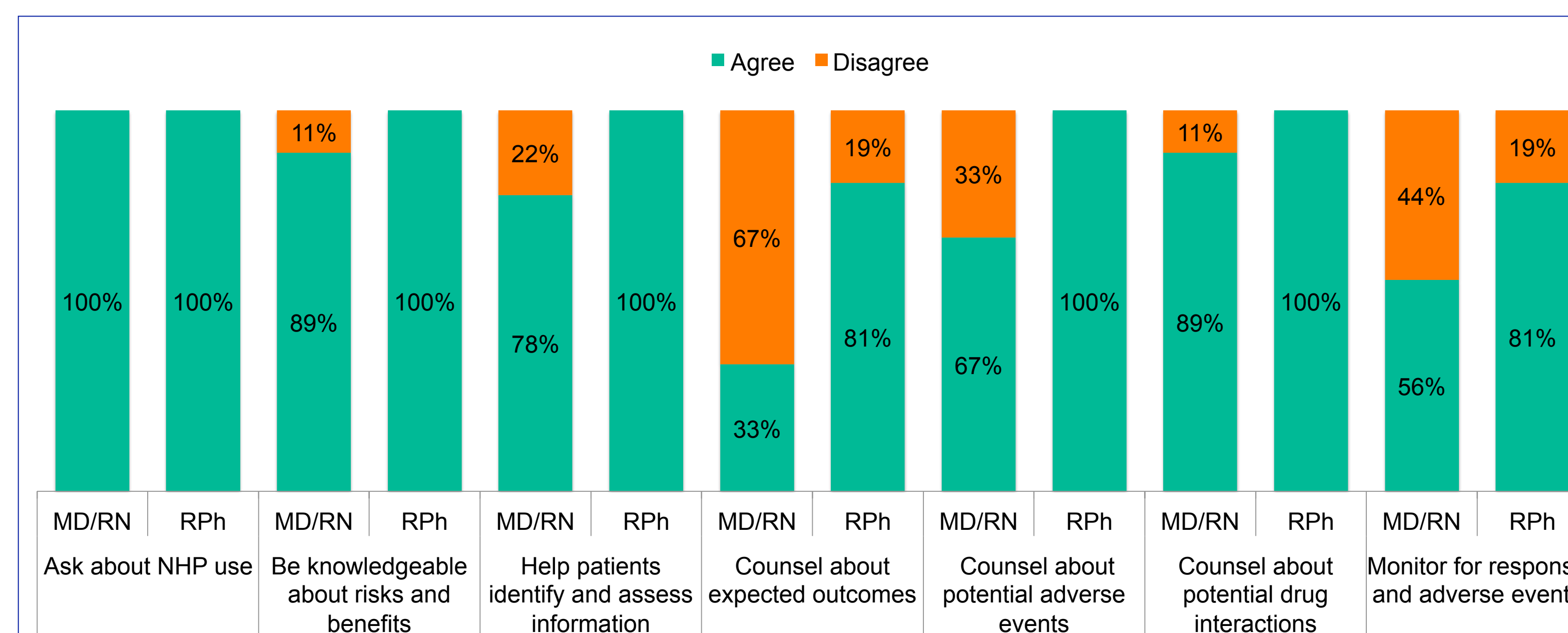
## Results

- Survey response rate was 10%

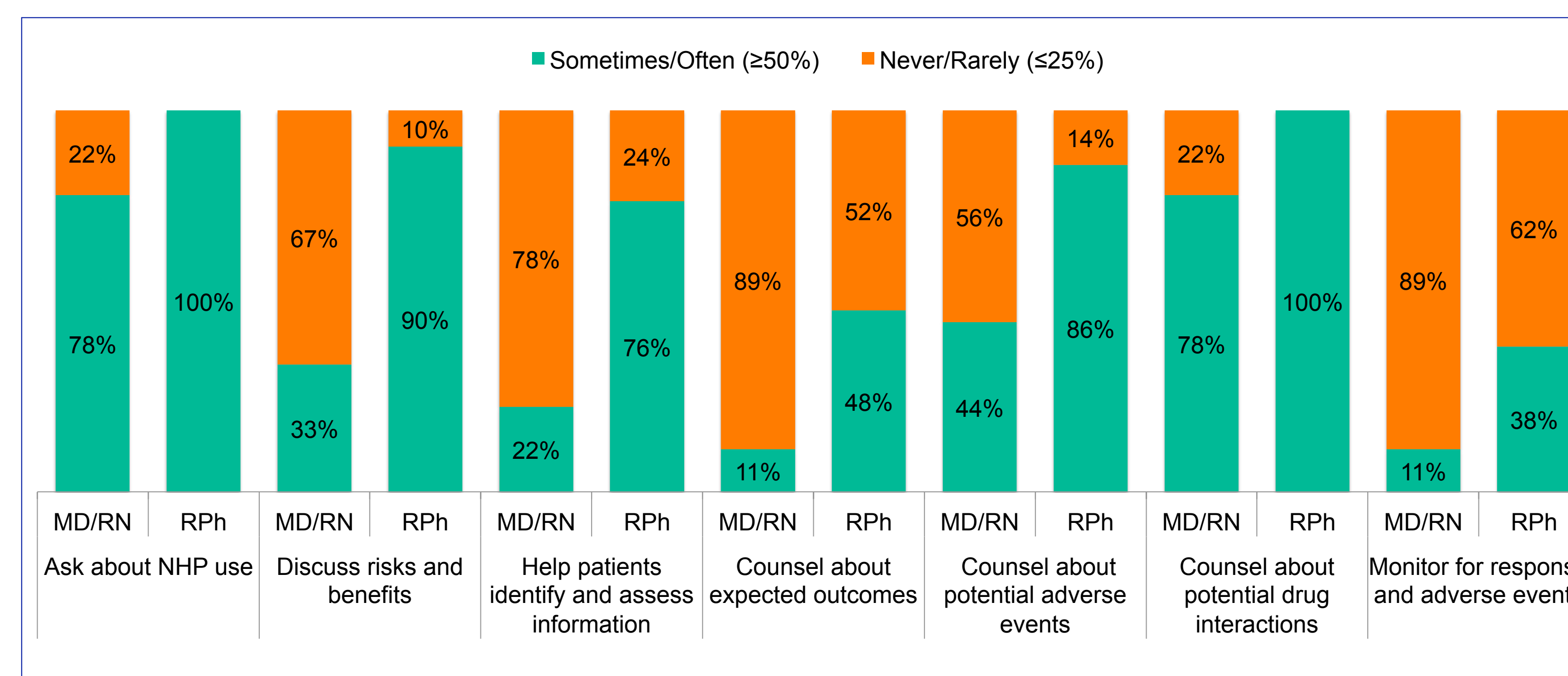
**Table 1: Demographics of survey responders**

Demographic characteristics (n = 30)		Number (%)
Gender	Male	5 (17%)
	Female	25 (83%)
Profession	Physician	6 (20%)
	Pharmacists	21 (70%)
	Registered Nurse	3 (10%)
Years practicing in L/HSCT	Less than 5 years	4 (13%)
	5 - 15 years	18 (60%)
	16 - 25 years	4 (13%)
	More than 25 years	4 (13%)
Region in Canada	Western Canada <sup>1</sup>	21 (70%)
	Central Canada <sup>2</sup>	8 (27%)
	Atlantic Canada <sup>3</sup>	1 (3%)

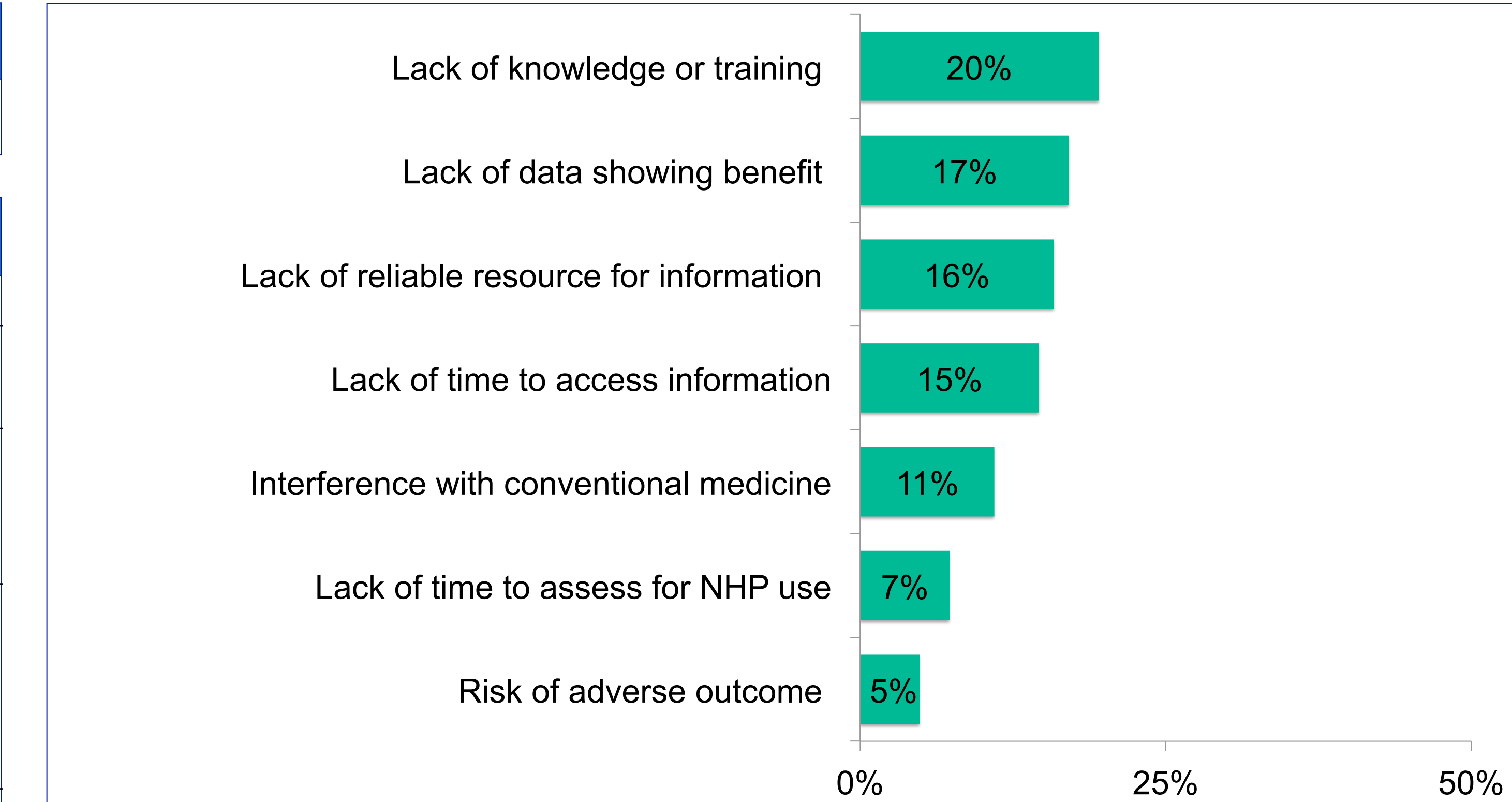
1 - Western Canada (British Columbia, Alberta, Saskatchewan, Manitoba)  
 2 - Central Canada (Ontario, Quebec)  
 3 - Atlantic Canada (Maritimes, Newfoundland, Labrador)



**Figure 1: Comparison of attitudes about responsibilities of NHP management among practitioners**



**Figure 2: Comparison of current practices of NHP management among practitioners**



**Figure 3: Barriers to asking about NHP use**

## Results

- 50% of participants have easy access to current and reliable resources
- 78% of physicians and nurses sometimes or often refer patients to pharmacists to guide care on NHPs
- Only 7% of practitioners are very satisfied with the current NHP resources they use
- 97% of practitioners would use a new evidence-based resource tailored for L/HSCT patients
- No differences found in secondary outcomes

## Conclusions

- Professional practices of pharmacists reflect their attitudes more so than physicians and nurses
- Barriers to asking about NHPs may be contributing to the discordance between practitioner attitudes of professional responsibilities and professional practices
- Practitioners may benefit from access to a new evidence-based resource tailored to L/HSCT patients

## Limitations

- Response rate was lower than expected
- Selection bias
  - CBMTG email list not representative of multi-disciplinary membership
  - Under – representation of physicians and nurses
  - Results biased towards practitioners who ask about NHP use