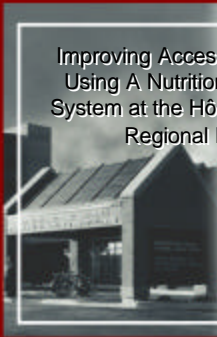

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Improving Access to Nutrition Counselling Using A Nutrition Referral Priority Rating System at the Hôpital Régional de Sudbury Regional Hospital (HRSRH)

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Summary of Presentation

- Background
- Method
- Literature
- NRPRS tool
- Results (4 of 7 indicators)
- Next steps
- Key lessons

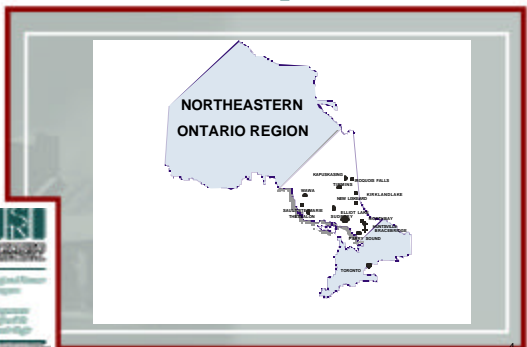


Research Team


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Map




NORTHEASTERN ONTARIO REGION




Background Information

- Dietitians of the Supportive Care Program (SCP) see approximately 27% (n=620) of newly diagnosed cancer patients referred annually to the Cancer Centre in Sudbury
- With the increase in the number of referrals and complexity of cases, challenges were identified with workloads
- The Nutrition Referral Priority Rating System (NRPRS) was developed in 2004
- The CCO Innovation Fund(2004-2005) permitted a study to be conducted to evaluate the NRPRS tool and implement changes to practice



Method

- Retrospective chart audit (n=112)
- Two patient focus groups
- Revision of NRPRS tool
- In-services with referring health care professionals
- Prospective chart audit (n=179)
 - Drop-in session
 - Group information session



Literature Review

- Early nutrition intervention is important to reduce morbidity and mortality associated with cancer (Guenter et al. 2002)
- Nutrition intervention can help maintain weight, decrease rate of weight loss (Dawson et al. 2001), decrease toxicity associated with treatment, improve overall survival and treatment response and improve quality of life (Cunningham & Bell, 2000).

NRPRS TOOL (Front)

NRPRS TOOL (Back)

Adverse Event	Grade 1	Grade 2	Grade 3	Grade 4
Weight Change	Weight change < 5% in 30 days	Weight change 5-10% in 30 days	Weight change > 10% in 30 days	Weight change > 15% in 30 days
Albumin	Albumin > 3.5 g/dL	Albumin 3.0-3.5 g/dL	Albumin 2.5-3.0 g/dL	Albumin < 2.5 g/dL
Neutrophils	Neutrophils > 1500/mm ³	Neutrophils 1000-1500/mm ³	Neutrophils 500-1000/mm ³	Neutrophils < 500/mm ³
Platelets	Platelets > 100,000/mm ³	Platelets 50,000-100,000/mm ³	Platelets 25,000-50,000/mm ³	Platelets < 25,000/mm ³
AST	AST < 3x ULN	AST 3-5x ULN	AST > 5x ULN	AST > 10x ULN
ALT	ALT < 3x ULN	ALT 3-5x ULN	ALT > 5x ULN	ALT > 10x ULN
Bilirubin	Bilirubin < 2.0 mg/dL	Bilirubin 2.0-3.0 mg/dL	Bilirubin > 3.0 mg/dL	Bilirubin > 5.0 mg/dL
Cr	Cr < 1.5 mg/dL	Cr 1.5-2.0 mg/dL	Cr > 2.0 mg/dL	Cr > 3.0 mg/dL
WBC	WBC > 10,000/mm ³	WBC 5,000-10,000/mm ³	WBC 2,000-5,000/mm ³	WBC < 2,000/mm ³
Hemoglobin	Hemoglobin > 10 g/dL	Hemoglobin 8-10 g/dL	Hemoglobin 6-8 g/dL	Hemoglobin < 6 g/dL
Hematocrit	Hematocrit > 35%	Hematocrit 30-35%	Hematocrit 25-30%	Hematocrit < 25%
ESR	ESR < 30 mm/hr	ESR 30-40 mm/hr	ESR > 40 mm/hr	ESR > 60 mm/hr
Prothrombin Time	PT < 15 sec	PT 15-18 sec	PT > 18 sec	PT > 20 sec
INR	INR < 1.5	INR 1.5-2.0	INR > 2.0	INR > 3.0
APTT	APTT < 40 sec	APTT 40-50 sec	APTT > 50 sec	APTT > 60 sec
PT/APTT	PT/APTT < 1.5x ULN	PT/APTT 1.5-2.0x ULN	PT/APTT > 2.0x ULN	PT/APTT > 3.0x ULN
PT/APTT	PT/APTT < 1.5x ULN	PT/APTT 1.5-2.0x ULN	PT/APTT > 2.0x ULN	PT/APTT > 3.0x ULN
PT/APTT	PT/APTT < 1.5x ULN	PT/APTT 1.5-2.0x ULN	PT/APTT > 2.0x ULN	PT/APTT > 3.0x ULN

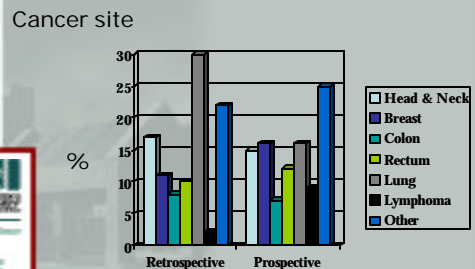
Indicator 1

	Retrospective		Prospective	
	Male	Female	Male	Female
Age				
Mean	66.34	62.24	66.07	62.45
Standard deviation	11.12 (n=60)	13.89 (n=52)	12.62 (n=96)	12.61 (n=83)

Indicator 1 (cont.)

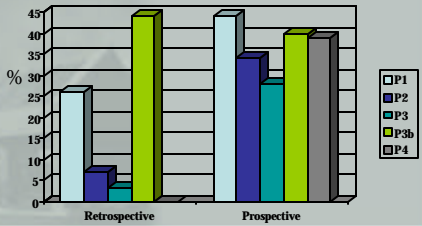
Residence	Retrospective	Prospective
Sudbury	31% (n=35)	45% (n=80)
Outside of Sudbury Region	69% (n=77)	55% (n=99)

Indicator 1 (cont.)



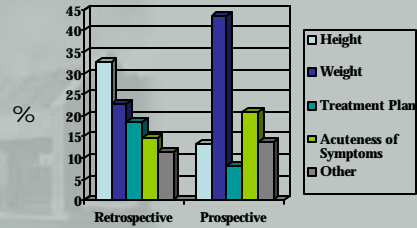
Indicator 2

Referrals completed (from 11% to 37%)



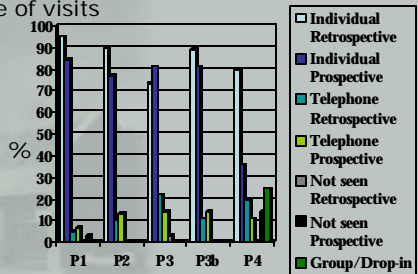
Indicator 2 (cont.)

Missing Information on Referrals



Indicator 3

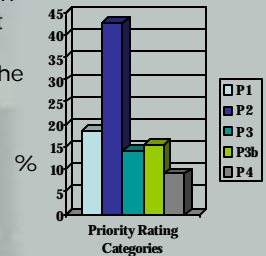
Type of visits



Indicator 6

Time spent on direct patient care in each category of the NRPRS

(April-June 2005)



Quality of Life

Patients saw their nutrition status as being critical to their **quality of life**, in essence a **measurement** of how well they are doing at fighting the disease.

"Once you can get that balance to be able to eat and you've got your strength, you might have more strength to be able to fight it too".

Next Steps

- Order Entry/Workload measurement system (computerized referral and statistics systems)
- Further revisions to the group information session, potential for production of a video and/or videoconferencing
- Changes in practice, culture shift
- In-services for health care professionals of the RCP, HRSRH, and other community referrers
- Monitoring of waiting list
- Publish study results

Key Lessons

- Lesson 1: Involve all stakeholders in the project
- Lesson 2: Keep processes clear and simple for referring health care professionals
- Lesson 3: Plan for the implications of your findings
- Lesson 4: Offering drop-in and group sessions are creative ways to address the educational needs of some cancer patients



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Key Lessons (cont.)

- Lesson 5: Develop indicators as part of quality assurance to evaluate the changes made in practice based on study results
- Lesson 6: A shift in practice may be a culture change that needs ongoing reinforcement
- Lesson 7: Various tasks requiring additional resources were necessary for the project to be successful. Others with an interest in conducting a similar study should plan for additional front line staff hours



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Funding

- CCO Innovation Fund 2004-2005
- Northern Cancer Research Foundation



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