HOW DOES THE GENERAL PUBLIC FEEL ABOUT RADIOTHERAPY?
THE CASE OF BELGIUM

Presented at the 3RD ESTRO FORUM 24-28APRIL
BARCELONA, SPAIN
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J. Hendrickx, H. Hellinckx, G. De Meerleer

A STUDY ORGANISED BY BRAVO IN COLLABORATION WITH THE KU LEUVEN
THE BELGIAN RADIATION ONCOLOGY AWARENESS AND VISIBILITY ORGANISATION

- Radiation oncologists + RT staff members in 25 departments
- > 20 companies active
- 6 medical representatives
- 6 industry representatives

BRAVO
THE BELGIAN RADIATION ONCOLOGY AWARENESS AND VISIBILITY ORGANISATION

CREATED IN 2012 TO EVALUATE AND WHERE REQUIRED INCREASE KNOWLEDGE CONCERNING RADIATION ONCOLOGY

BY INFORMING (THE BELGIAN)
- PATIENTS
- FAMILY MEMBERS
- GENERAL PUBLIC
- HEALTHCARE PROFESSIONALS
- POLICY MAKERS
THE BELGIAN RADIATION ONCOLOGY AWARENESS AND VISIBILITY ORGANISATION

ACTION DECIDED IN 2013: STUDY

“PERCEPTION OF RADIOTHERAPY AS A TREATMENT FOR CANCER”

GENERAL PUBLIC
BACKGROUND

• STUDY BY YOU GOV - 2011 (N=2,297) IN THE UK CONCERNING THE IMAGE OF RADIOTHERAPY (NATIONAL RADIOTHERAPY AWARENESS INITIATIVE)

  • 15% PRECISE TREATMENT
  • 40% FRIGHTENED
  • 89% HEARD OF THE TREATMENT

• CONCLUSION: NO POSITIVE PERCEPTION OF RADIOTHERAPY IN UK
• SIMILAR SITUATION IN BELGIUM?
**METHODS**

<table>
<thead>
<tr>
<th>TECHNIQUE</th>
<th>FACE TO FACE STREET INTERVIEWS IN ALL PROVINCES OF BELGIUM BY A PROFESSIONAL CONSULTING AGENCY</th>
</tr>
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<tbody>
<tr>
<td>SAMPLE SIZE</td>
<td>750 (746 COMPLETED)</td>
</tr>
<tr>
<td>PERIOD</td>
<td>MARCH - JUNE 2014</td>
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<tr>
<td>ERROR MARGIN</td>
<td>3.5% - 95% RELIABILITY</td>
</tr>
<tr>
<td>STATISTICAL ANALYSIS</td>
<td>SPSS FOR FREQUENCY ANALYSIS</td>
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<tr>
<td>REPRESENTATIVITY</td>
<td>BALANCED FOR GENDER                                  BALANCED FOR GEOGRAPHY MAJORITY OF RESPONDENTS &lt; 40 YEAR (57%)</td>
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METHODS

QUESTIONS

1. There are different ways to treat cancer. Which ones do you know?
2. What do you think of, when you hear the word ‘radiotherapy’
3. Could you explain the difference between radiotherapy and radiology?
4. How safe would you qualify radiotherapy, surgery and chemotherapy?
5. Which of these 3 treatments do you consider most painful?
6. And least painful?
7. Please indicate side effects of radiotherapy you might know (first 3 noted)
8. Do you think patients irradiated can suffer from the radiotherapy treatment in the long run?
9. Which of the 3 treatments (radiotherapy, surgery, chemotherapy) is the most innovative?
10. Which of the 3 treatments do you associate with the best cure rate of cancer?
11. How have you been mainly informed on cancer treatments?
12. Do you know anyone personally who has been treated for cancer?
13. Sociodemographic data of the respondent: gender / age / province / highest education
RESULTS: GENERAL AWARENESS

THERE ARE DIFFERENT WAYS TO TREAT CANCER
WHICH ONES DO YOU KNOW OF?

- RADIOTHERAPY
- CHEMOTHERAPY
- SURGERY

<table>
<thead>
<tr>
<th></th>
<th>1ST ANSWER</th>
<th>2ND ANSWER</th>
<th>3RD ANSWER</th>
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<tbody>
<tr>
<td>TOTAL</td>
<td>59,5%</td>
<td>40,1%</td>
<td>0,0%</td>
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<tr>
<td>1ST ANSWER</td>
<td>17,4%</td>
<td>8,3%</td>
<td>8,6%</td>
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<tr>
<td>2ND ANSWER</td>
<td>33,5%</td>
<td>17,4%</td>
<td>14,5%</td>
</tr>
<tr>
<td>3RD ANSWER</td>
<td>17,3%</td>
<td>14,5%</td>
<td>14,5%</td>
</tr>
<tr>
<td>TOTAL%</td>
<td>90,3%</td>
<td>68,9%</td>
<td>17,4%</td>
</tr>
</tbody>
</table>
RESULTS: GENERAL AWARENESS

There are different ways to treat cancer. Which ones do you know of?

- Radiotherapy: 17% of respondents mention radiotherapy first.
- Chemotherapy: 60% do mention radiotherapy.

Diagram showing the percentages of respondents who mentioned each treatment option first, second, and third.
RESULTS: PERCEPTION

WHAT DO YOU THINK OF UPON HEARING THE WORD “RADIOThERAPY”? (OPEN QUESTION)

1ST ANSWER (WORD CLOUD)

2ND ANSWER (WORD CLOUD)
RESULTS: PERCEPTION

WHAT DO YOU THINK OF UPON HEARING THE WORD “RADIOThERAPY”? (OPEN QUESTION)

3RD ANSWER (WORD CLOUD)

danger – painful – burns
baldness – fatigue – feeling ill
RESULTS: PERCEPTION

WHAT DO YOU THINK OF UPON HEARING THE WORD “RADIOThERAPY”? (OPEN QUESTION)

3RD ANSWER (WORD CLOUD)

danger – painful – burns
baldness – fatigue – feeling ill

Neutral (first answer) to negative (2nd-3rd answer)
RESULT: KNOWLEDGE

THERE IS A DIFFERENCE BETWEEN RADIOTHERAPY AND RADIOLOGY. COULD YOU DESCRIBE THAT DIFFERENCE? (OPEN QUESTION)

- KNOW THE DIFFERENCE
- DON'T KNOW THE DIFFERENCE
- WRONG ANSWER

21.40%
35.80%
42.80%
RESULTS: KNOWLEDGE

THERE IS A DIFFERENCE BETWEEN RADIOTHERAPY AND RADIOLOGY. COULD YOU DESCRIBE THAT DIFFERENCE? (OPEN QUESTION)

- KNOW THE DIFFERENCE
- DON'T KNOW THE DIFFERENCE
- WRONG ANSWER

Only 40% know the difference between radiology and radiotherapy.
RESULTS: SAFETY

HOW SAFE DO YOU ESTIMATE THE THREE TREATMENTS ON A SCALE OF 1 TO 5?

RT vs Chemo
Chemo vs Surgery
RT vs Surgery

All differences p≤0.05
RESULTS: SAFETY

HOW SAFE DO YOU ESTIMATE THE THREE TREATMENTS ON A SCALE OF 1 TO 5?

- Surgery: >50% safe or very safe
- Radiotherapy: <30% safe or very safe
- Chemotherapy: Least safe
RESULTS: PAIN PERCEPTION

Which of the three treatments is the most and least painful?

- **Radiotherapy**
  - Most Painful: 11.1%
  - Least Painful: 40.3%

- **Chemotherapy**
  - Most Painful: 13.9%
  - Least Painful: 30.8%

- **Surgery**
  - Most Painful: 60.3%
  - Least Painful: 20.6%

- **Don’t Know**
  - 15.0%

Belgian Radiation Oncology Awareness and Visibility Organization
RESULTS: PAIN PERCEPTION

WHICH OF THE THREE TREATMENTS IS THE MOST AND LEAST PAINFUL?

Radiotherapy:
- Considered least painful

Chemotherapy:
- Considered more painful than radiotherapy or surgery
RESULTS: LONG TERM EFFECTS

DO YOU THINK RADIOTHERAPY HAS LONG TERM SIDE-EFFECTS ON A PATIENT?

- **YES** 35.60%
- **NO** 64.40%
DO YOU THINK RADIOTHERAPY HAS LONG TERM SIDE-EFFECTS ON A PATIENT?

64.40%  35.60%

HAIR LOSS  FATIGUE  NAUSEA

Respondents associate radiotherapy with long term side effects and then cite problems that might have been induced rather than by chemotherapy.
RESULTS: INNOVATIVENESS

WHICH OF THE THREE TREATMENTS IS THE MOST INNOVATIVE ACCORDING TO YOU?

- RADIOTHERAPY: 34.90%
- CHEMOTHERAPY: 19.70%
- SURGERY: 31.40%
- NO ANSWER: 16.20%
RESULTS: INNOVATIVENESS

WHICH OF THE THREE TREATMENTS IS THE MOST INNOVATIVE ACCORDING TO YOU?

- **RADIOTHERAPY**: 34.90%
- **SURGERY**: 31.40%
- **CHEMOTHERAPY**: 19.70%
- **NO ANSWER**: 16.20%

Radiotherapy considered most innovative.
RESULTS: EFFICACY

TREATMENT ASSOCIATED WITH BEST CHANCES OF BEING CURED FOR CANCER

- Radiotherapy: 13.20%
- Chemotherapy: 26.30%
- Surgery: 40.00%
- No answer: 6.70%
- Doesn't know: 13.90%
RESULTS: EFFICACY

TREATMENT ASSOCIATED WITH BEST CHANCES OF BEING CURED FOR CANCER

- Radiotherapy: 13,20%
- Chemotherapy: 26,30%
- Surgery: 40,00%
- No answer: 6,70%
- Doesn’t know: 13,90%

Radiotherapy least cited
WHERE OR HOW HAVE YOU LEARNT THE MOST ABOUT THE TREATMENT OF CANCER?

- **PERSONAL ENVIRONMENT**: 59.10%
- **TV**: 36.70%
- **WRITTEN PRESS**: 24.30%
- **MEDICAL ENVIRONMENT**: 22.10%
- **INTERNET**: 21.80%
- **SCHOOL**: 17.70%

Respondents base their knowledge on experiences by friends and relatives.
RESULTS:

DO YOU KNOW SOMEONE WHO IS/HAS BEEN TREATED FOR CANCER?

- 58.40% Family
- 36.60% Friends
- 15.10% Nobody
- 7.10% Myself
- 1.90% No answer
RESULTS:

DO YOU KNOW SOMEONE WHO IS/HAS BEEN TREATED FOR CANCER?

- 58.40% of respondents know someone who is/has been treated for cancer.
- 36.60% of respondents know a family member who is/has been treated for cancer.
- 7.10% of respondents know a friend who is/has been treated for cancer.
- 15.10% of respondents do not know a cancer patient.
- 1.90% of respondents gave no answer.

Only 15% of respondents do not know a cancer patient.
RESULTS: SUBGROUPS

• By patient vs no patient
  • Patients are better informed than the general public
  • Patients have a less safe image of radiotherapy

• By area of the country
  • Patients in the south of the country were less aware of radiotherapy
  • Patients in the Brussels area have a less safe image of radiotherapy

• By gender
  • Overall no significant differences

• By educational background

• By the answer on the first question (knowing RT)
KNOWLEDGE OF RADIOTHERAPY IN BELGIAN GENERAL POPULATION (NOT PATIENTS) IS RELATIVELY POOR AND CONFUSION WITH OTHER TREATMENT MODALITIES EXISTS.
QUESTIONNAIRE CONCLUSIONS

KNOWLEDGE OF RADIOTHERAPY IN BELGIAN GENERAL POPULATION IS RELATIVELY POOR AND CONFUSION WITH OTHER TREATMENT MODALITIES EXISTS.

RADIOTHERAPY IS NOT READILY RECOGNIZED AS AN EFFECTIVE TREATMENT OPTION AND SEEMS ASSOCIATED WITH INSECURITY.
QUESTIONNAIRE CONCLUSIONS

KNOWLEDGE OF RADIOTHERAPY IN BELGIAN GENERAL POPULATION IS RELATIVELY POOR AND CONFUSION WITH OTHER TREATMENT MODALITIES EXISTS.

RADIOTHERAPY IS NOT READILY RECOGNIZED AS AN EFFECTIVE TREATMENT OPTION AND SEEMS ASSOCIATED WITH INSECURITY.

THERE IS A CLEAR NEED FOR FUTURE EDUCATIONAL EFFORTS TARGETED TO THE GENERAL POPULATION.
ACTIONS (1)

BIENNIAL BRAVO SYMPOSIUM

2013: “THE INCREASING IMPORTANCE OF RADIOTHERAPY ONCOLOGY IN CANCER TREATMENT”

2016: “QUALITY AND SAFETY IN THE FIELD OF RADIOTHERAPY AND ONCOLOGY”*

* Early 2016, in preparation
ACTIONS (1)

BIENNIAL BRAVO SYMPOSIUM

2013: “THE INCREASING IMPORTANCE OF RADIOTHERAPY ONCOLOGY IN CANCER TREATMENT”

2016: “QUALITY AND SAFETY IN THE FIELD OF RADIOTHERAPY AND ONCOLOGY”

TARGET:
(✔) GENERAL PUBLIC - PATIENTS
✔ HEALTHCARE PROFESSIONALS
✔ POLICY MAKERS
POSTERS IN RT DEPTS

ACTION (2)
TARGET:

✔ GENERAL PUBLIC - PATIENTS
✗ HEALTHCARE PROFESSIONALS
✗ POLICY MAKERS

POSTERS IN RT DEPTS (IN PREPARATION)
ACTIONs (3)

TRILINGUAL WEBSITE

NEWS ON WEBSITE

NEWSLETTER

GLOSSARY

KANKERPATIENTEN EN HUN FAMILIE

Wat is radiotherapie? Patiënten en hun familie kunnen het uiteengelegde informatie vinden over radiotherapiebehandelingen in België.

Toegang

MEDISCHE PROFESSIONALS EN RADIOTherapie-ONCOLOGIE

Als medische professional bent u vertrouwd met het concept radiotherapie. Bezoek deze pagina’s voor een benadering vanuit medisch standpunt.

Toegang

BELEIDSMAKERS IN DE ZORG EN RADIOTherapie-ONCOLOGIE

Radiotherapie is niet zoals andere medische vakgebieden. Dit onderdeel beschrijft bestaande kwaliteitsinitiatieven en kosten-effectiviteit.

Toegang

RADIOTherapie BIJ KANKERBEHANDELING

BRAVO is de Belgische Radiation Oncology Awareness and Visibility Organization.

Radiotherapie-oncologie is een medische specialiteit die hoofdzakelijk wordt gebruikt om kanker te behandelen. Het is belangrijk om radiotherapie te onderschrijven van radiologie, nucleaire geneesmiddelen en productie van nucleaire energie, alsook van chemotherapie. *Klik hier om meer te weten te komen over wat radiotherapie is, en even belangrijk, wat het niet is.*

De Belgische radiotherapie-oncologie diensten (artsen, radiologen en verpleegkundigen) werken nauw samen met de medische industrie die de middelen en systemen ter beschikking stellen om behandelingen van hoge kwaliteit te kunnen aangebieden aan de patiënten. De medische en industriële partners binnen BRAVO beslissen om samen meer kennisbaar te geven een radiotherapie-oncologie als een veilige en zeer moderne vorm van kankerbehandeling. Het hoofddoel van deze samenwerking is deze boodschap uit te dragen naar patiënten, wetenschap, politiek en ouderen.

LAATSTE NIEUWS

De Belg kent radiotherapie niet zo goed

17 april 2015

Een recente enquête bij de bevolking wijst uit dat de Belg beter geïnformeerd moet worden over radiotherapie. Informeren is één van de doelstellingen van BRAVO.
TRILINGUAL WEBSITE

NEWS ON WEBSITE

NEWSLETTER

GLOSSARY

TARGET:
✔ GENERAL PUBLIC - PATIENTS
✔ HEALTHCARE PROFESSIONALS
✔ POLICY MAKERS
How does the general public feel about radiotherapy?
N. Jansen\textsuperscript{1}, M. Mak\textsuperscript{2}, P. Meijnders\textsuperscript{3}, N. Christian\textsuperscript{4}, L. Van den Berghe\textsuperscript{5}, J. Hendrickx\textsuperscript{2}, H. Hellinckx\textsuperscript{6}, G. De Meerleer\textsuperscript{5}
\textsuperscript{1}CHU - Sart Tilman, Radiation Oncology, Liège, Belgium
\textsuperscript{2}KU Leuven, Economics and Business, Brussels, Belgium
\textsuperscript{3}ZNA General Hospital and University of Antwerp, Radiation Oncology, Antwerp, Belgium
\textsuperscript{4}Hopital de Jolimont-Lobbes, Radiation Oncology, Haine-St-Paul, Belgium
\textsuperscript{5}University Hospital Gent, Radiation Oncology, Gent, Belgium
\textsuperscript{6}Unamec, Health Economics and Reimbursement, Brussels, Belgium