

XXXIII CONGRESSO NAZIONALE AIRO

AIRO2023

BOLOGNA,
27-29 OTTOBRE 2023

PALAZZO DEI CONGRESSI

Radioterapia Oncologica: l'evoluzione al servizio dei pazienti



Associazione Italiana
Radioterapia e Oncologia clinica

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PATTERNS OF PRACTICE FOR BREAST CANCER POST-OPERATIVE RADIOTHERAPY IN ITALY ACCORDING TO THE ESTRO-ACROP CONSENSUS AND AIRO POSITION PAPER: A NATIONAL SURVEY ON THE BEHALF OF AIRO BREAST CANCER GROUP

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AIRO BREAST GROUP: Becherini C, Borghesi S, Cucciarelli F, Dicuonzo S, Fiorentino A,
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DICHIARAZIONE

Relatore: Dott.ssa Samantha Dicuonzo

Come da nuova regolamentazione della Commissione Nazionale per la Formazione Continua del Ministero della Salute, è richiesta la trasparenza delle fonti di finanziamento e dei rapporti con soggetti portatori di interessi commerciali in campo sanitario.

- Posizione di dipendente in aziende con interessi commerciali in campo sanitario **(NIENTE DA DICHIARARE)**
- Consulenza ad aziende con interessi commerciali in campo sanitario **(NIENTE DA DICHIARARE)**
- Fondi per la ricerca da aziende con interessi commerciali in campo sanitario **(NIENTE DA DICHIARARE)**
- Partecipazione ad Advisory Board **(NIENTE DA DICHIARARE)**
- Titolarità di brevetti in compartecipazione ad aziende con interessi commerciali in campo sanitario **(NIENTE DA DICHIARARE)**
- Partecipazioni azionarie in aziende con interessi commerciali in campo sanitario **(NIENTE DA DICHIARARE)**
- Altro **(onorario da parte di Accuray Asia-2022)**

Background

Lancet Oncology -01/2022

European Society for Radiotherapy and Oncology Advisory Committee in Radiation Oncology Practice consensus recommendations on patient selection and dose and fractionation for external beam radiotherapy in early breast cancer



Icro Meattini, Carlotta Becherini, Liesbeth Boersma, Orit Kaidar-Person, Gustavo Nader Marta, Angel Montero, Birgitte Vrou Offersen, Marianne C Aznar, Claus Belka, Adrian Murray Brunt, Samantha Dicuonzo, Pierfrancesco Franco, Mechthild Krause, Mairead MacKenzie, Tanja Marinko, Livia Marrazzo, Ivica Ratoska, Astrid Scholten, Elzbieta Senkus, Hilary Stobart, Philip Poortmans, Charlotte E Coles**

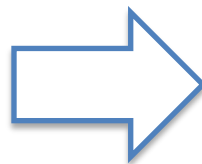
La radiologia medica -08/2022

POSITION PAPER



The Italian Association for Radiotherapy and Clinical Oncology (AIRO) position statements for postoperative breast cancer radiation therapy volume, dose, and fractionation

Icro Meattini^{1,2} · Isabella Palumbo³ · Carlotta Becherini² · Simona Borghesi⁴ · Francesca Cucciarelli⁵ · Samantha Dicuonzo⁶ · Alba Fiorentino⁷ · Ruggero Spoto⁸ · Philip Poortmans^{9,10} · Cynthia Aristei³ · Lorenzo Liv^{1,2}



?????

Material & Methods

Cherries Checklist

Section 1- Generality (9 questions)

Section 2- Whole breast irradiation: moderate hypofractionation and/or ultrahypofractionation (10 questions)

Section 3- Chest wall irradiation: moderate hypofractionation and/or ultrahypofractionation (10 questions)

Section 4- Regional nodes irradiation: moderate hypofractionation and/or ultrahypofractionation (8 questions)

Section 5: Partial breast irradiation (5 questions)

Section 6: Conclusions (1 question)

SurveyMonkey



120 Centers

Results: Generality

| Item N. | Item | Answers | Results (N) |
|---|---|---------------------|-------------|
| 1 (Answered=120 Skipped=0) | Years of experience as RO | <5 years | 13.33% (16) |
| | | 5-10 years | 16.67% (20) |
| | | >10 years | 70.00% (84) |
| 2 (Answered=119 Skipped=1) | Location of Radiation Oncology Department | North | 40.34% (48) |
| | | Center | 35.29% (42) |
| 3 (Answered=119 Skipped=1) -multiple choice- | Type of Hospital | South | 24.37% (29) |
| | | ARNAS | 1.68% (2) |
| | | IRCCS | 17.65% (21) |
| | | University | 22.69% (27) |
| | | Public | 52.94% (63) |
| 4 (Answered=117 Skipped=3) -multiple choice- | Financial funding | Healthcare Facility | 8.4% (10) |
| | | Public | 82.05% (96) |
| | | Private | 1.71% (2) |
| | | Accredited Private | 17.95% (21) |
| 5 (Answered=116 Skipped=4) | Breast cancer patients' number treated per year | <100 | 4.31% (5) |
| | | ≥100 e <200 | 23.28% (27) |
| | | ≥200 e <500 | 50.86% (59) |
| | | ≥500 | 21.55% (25) |
| 6 (Answered=115 Skipped=5) | Breast cancer outpatients evaluation/RO | < 10 | 2.61% (3) |
| | | ≥10 e <50 | 13.91% (16) |
| | | ≥50 e <100 | 36.52% (42) |
| | | ≥100 | 46.96% (54) |

| Item N. | Item | Answers | Results (N) |
|---|---|---|--------------|
| 7 (Answered=112 Skipped=8) -multiple choice- | Multidisciplinary discussion | For all the patients, after surgery | 76.79% (86) |
| | | For a part of the patients, after surgery | 8.93% (10) |
| | | For all the patients, also before surgery | 74.11% (83) |
| | | For a part of the patients, also before surgery | 25.89% (29) |
| 8 (Answered=113 Skipped=7) -multiple choice- | Available techniques at the Radiation Oncology Department | No | 0.89% (1) |
| | | X-ray IORT | 5.31% (6) |
| | | Electron beam IORT | 11.5% (13) |
| | | Multi-catheter interstitial brachytherapy LDR | 0 |
| | | Multi-catheter interstitial brachytherapy HDR | 14.16% (16) |
| | | Multi-catheter interstitial brachytherapy PDR | 1.77% (2) |
| | | Balloon based brachytherapy | 0.88% (1) |
| | | 3D-CRT | 95.58% (108) |
| | | IMRT | 86.73% (98) |
| | | VMAT | 94.69% (107) |
| 9 (Answered=112 Skipped=8) -multiple choice- | Most frequent type of breast reconstruction | Tomotherapy | 21.24% (24) |
| | | Cyberknife | 7.96% (9) |
| | | Proton therapy | 0 |
| | | Other | 6.19% (7) |
| | | Retropectoral prosthesis | 30.36% (34) |
| | | Prepectoral prosthesis | 39.29% (44) |
| | | Temporary expander (fully inflated) | 73.21% (82) |
| | | Temporary expander (empty) | 13.39% (15) |
| | | Autologous reconstruction | 18.75% (21) |

Results: WBI

99%: Moderate hypofractionation as clinical practice (1% within a clinical trial)

40.05 Gy/15 fractions the most frequent RT scheme (66.07%)

3DCRT the most frequent technique (52.68%)

70% (78/111): Ultra-hypofractionation

according to the Fast Forward trial inclusion criteria (outside a clinical trial) (56.76%),
within a clinical trial (8.11%)

regardless both the Fast Forward inclusion criteria and inclusion in a clinical trial (5.41%)

3DCRT the most frequent technique (41.03%)

WHY NOT? (Weighted Average)

Lack of adequate recommendations/guidelines (2.97)

Major expected severe toxicity (2.91)

No expertise (2.79)

Lack of adequate technology (1.48)

Results: CWI

- 61%: prescription of moderate hypofractionation (1% within a clinical trial) regardless the type of breast reconstruction (91.18%)
- 40.05 Gy/15 fractions the most frequent RT scheme (75%)
- VMAT the most frequent RT technique (41.18%)

WHY NOT? (Weighted Average)

- Major expected severe toxicity (3.6)
- Lack of adequate recommendations/guidelines (3.15)
- No expertise (2.81)
- Lack of adequate technology (1.21)

Results: RNI

- 64.5%: prescription of moderate hypofractionation (1% within a clinical trial)
- 40.05 Gy/15 fractions the most frequent RT scheme (75.36%)
- VMAT the most frequent RT technique (50.72%)

WHY NOT? (Weighted Average)

- Major expected severe toxicity (3.58)
- Lack of adequate recommendations/guidelines (3.18)
- No expertise (2.68)
- Lack of adequate technology (1.32)

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Results: CWI

87.27%: NO PRESCRIPTION OF
ULTRAHYPOFRACTIONATION

WHY NOT? (Weighted Average)

- Lack of adequate recommendations/guidelines (3.72)
- Major expected severe toxicity (3.4)
- No expertise (2.85)
- Lack of adequate technology (1.29)

Results: RNI

>95%: NO PRESCRIPTION OF
ULTRAHYPOFRACTIONATION

WHY NOT? (Weighted Average)

- Lack of adequate recommendations/guidelines (3.87)
- Major expected severe toxicity (3.55)
- No expertise (2.67)
- Lack of adequate technology (1.3)

Were the ESTRO-ACROP consensus and AIRO-BREAST position statement “practice changing”?

| | | Yes: Moderate hypofractionation for all the patients | Yes: Moderate hypofractionation for an increasing number of patients | Yes: Start using ultra-hypofractionation | No changes |
|-----|---------------|--|--|--|------------|
| WBI | 51,35% | 15.32% | 22.52% | 13.51% | 48.64%* |
| CWI | 49,06% | 16.04% | 24.53% | 8.49 % | 50.94%** |
| RNI | 43,82% | 18.10% | 22.86% | 2.86% | 56.19%*** |

*using moderate and/or ultrahypofractionation before the publication

26,42% (28/106) of the Centers: **5-6 week; the remaining Centers used moderate and/or ultrahypofractionation before the publication

***28,57% (30/105) of the Centers: **5-6 week**; the remaining Centers used moderate and/or ultrahypofractionation before the publication

Results: PBI

57.55%: ADOPTION OF PBI in their daily clinical practice

WHY NOT? (Weighted Average)

No expertise (2.46)

Lack of adequate recommendations/guidelines (2.25)

Major expected severe toxicity (1.81)

Lack of adequate technology (1.65)

30 Gy/5 fractions and VMAT the most frequent fractionation and technique

| 4. Partial breast irradiation-suitable patient selection for external beam radiotherapy | | | |
|--|-------|---------------------|--------|
| I. Luminal-like subtypes small tumour (≤3 cm) | 91.3% | Strong consensus | 79.03% |
| II. Clear surgical margins (>2 mm) | 95.6% | Strong consensus | 83.87% |
| III. Nodal status | " | " | 79.03% |
| IIIa. Node negative | 100% | Unanimous consensus | |
| IIIb. Node negative (including isolated tumour cells) | 82.6% | Consensus | |
| IV. Absence of lymph vascular space invasion | 87.0% | Consensus | |
| V. Non-lobular invasive carcinoma | 87.0% | Consensus | |
| VI. Tumour grade 1-2 | 91.3% | Strong consensus | 72.58% |
| VII. Low-to-intermediate grade DCIS, sized ≤2.5 cm, clear surgical margins (>3 mm) | 78.2% | Consensus | 29.03% |
| VIII. Age 50 years or more | 87.0% | Consensus | 83.87% |
| IX. Unicentric or unifocal | 100% | Unanimous consensus | 79.03% |
| X. Primary systemic therapy and neoadjuvant chemotherapy is considered an exclusion criterion for partial breast irradiation | 78.2% | Consensus | |

DISCUSSION

La radiologia medica (2020) 125:674–682
<https://doi.org/10.1007/s11547-020-01147-5>

RADIOTHERAPY



Present clinical practice of breast cancer radiotherapy in Italy:
a nationwide survey by the Italian Society of Radiotherapy and Clinical
Oncology (AIRO) Breast Group

Fabiana Gregucci¹ · Alessandra Fozza² · Sara Falivene³ · Daniela Smaniotto⁴ · Anna Morra⁵ · Antonino Daidone⁶ ·
Raffaele Barbara⁷ · Antonella Ciabattini⁸ on behalf of the Italian Society of Radiotherapy and Clinical Oncology
(AIRO) Breast Group

Consensus & Position statement impact

WBI: Global homogeneity in the adoption of hypofractionation (**similar to Gregucci et al**)

CWI: moderate hypofractionated for 40.57% of the Centers (**vs 13% from Gregucci et al**)

RNI: moderate hypofractionation for 40.96% of the Centers (**vs 15% from Gregucci et al**)

CONCLUSION

Moderate hypofractionation is the standard in Italy for WBI

Ultrahypofractionation for WBI for a large number of Centers, but slight (13,51%) impact from Consensus/Position statement

Impact from Consensus/Position statement was high for moderate hypofractionation for CWI and RNI, increasing the adoption of this scheme in the recent years

5 fractions for CWI and RNI: in line with Consensus/Position statement

Moderate prescription of PBI in Italy, but indication in line with Consensus/Position statement

What about us?

Understand strategies to be implemented to standardize the heterogeneity of Italian Centers, overcoming the critical issues highlighted by the participating Centers....

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GRAZIE PER L'ATTENZIONE



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