



# Amifostine and Italian Guidelines for HNSCC

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# Management strategies of salivary gland hypofunction

TREATMENT STRATEGY	NUMBER OF STUDIES	RCT
<u>→ IMRT</u>	49	3
<u>→ Amifostine</u>	17	9
Muscarinic agonist stimulation	36	22
Gustatory stimulation	4	1
Mucosal lubricant/saliva substitutes	12	8
Submandibular gland transfer	4	-
Acupuncture	4	2
Hyperbaric Oxygen	2	2

# Amifostine

- Radical scavenger developed in 1959 at Walter Reed (WR) Institute of Research
- **WR 2721** (prodrug) → **WR 1065** (active thiol)  
by membrane alkaline phosphatase (deficient in tumor cells) → radioprotection agent in clinics
- Recommended the dose of 200 mg mg/mq/die in 15-30 min before radiotherapy fraction
- Mild side effects: nausea, emesis, hypotension
- FDA approval for xerostomia prevention

# IMRT vs 2-D/3-D RT PARSPORT PROTOCOL



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## **Parotid-sparing intensity modulated versus conventional radiotherapy in head and neck cancer (PARSPORT): a phase 3 multicentre randomised controlled trial**

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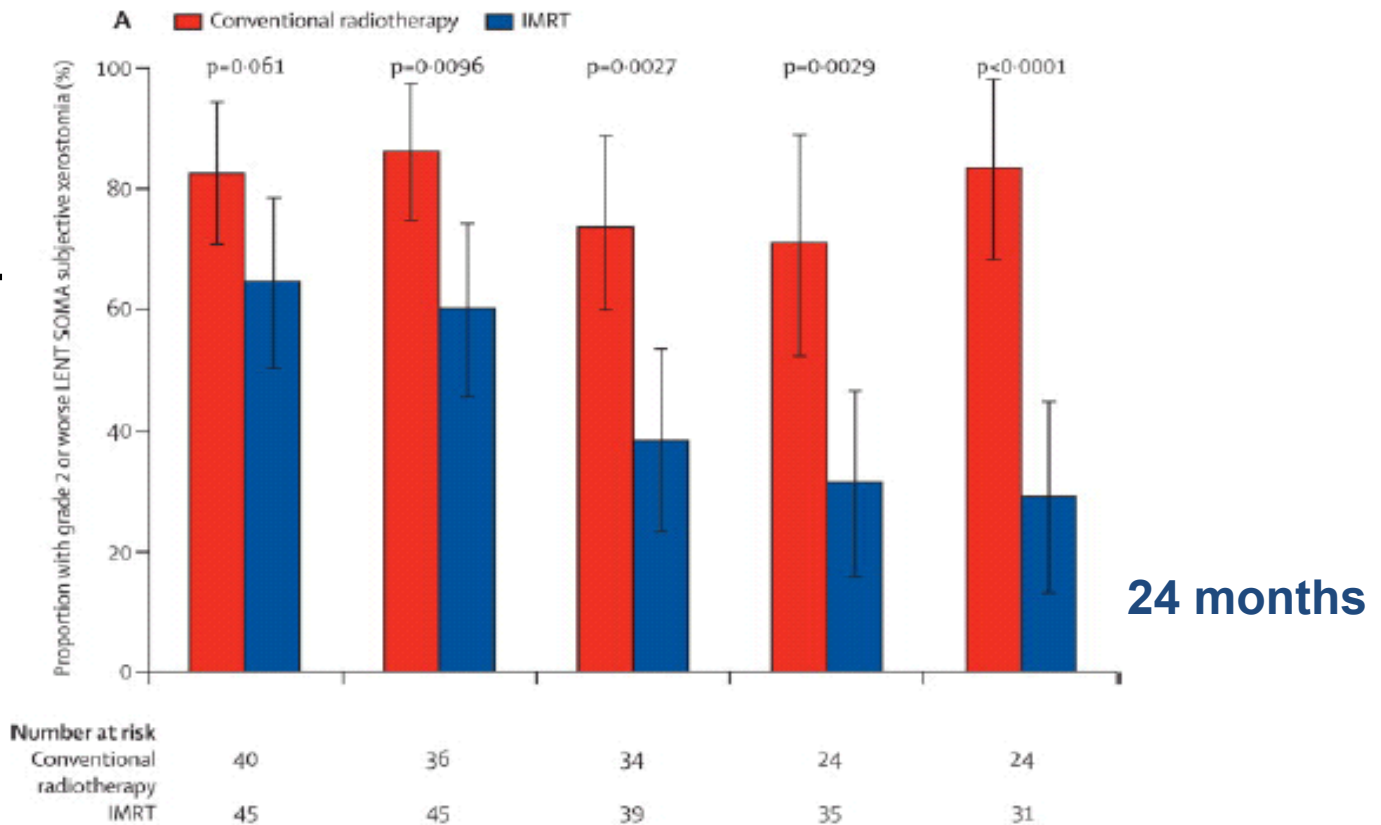
# Grade 2+ LENT SOMA subjective xerostomia

Nutting et al.

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Blue : IMRT

Red: 2-D/3-D RT



# IMRT controversies

**IMRT preserves parotid function \_\_\_\_\_  
even with the best static or rotational  
IMRT:**

- **60 % of grade 2 xerostomia soon after RT**
- **30% of grade 2 chronic xerostomia  
after 24 months**

# **IMRT plus amifostine for HNSCC patients**

**Is there a rationale for a  
concomitant association?**

# **HNSCC Guidelines**

- 1) ASCO (Larynx preservation)**
- 2) EHNS-ESMO- ESTRO - 2009**
- 3) AIRO (Italy): 2007**
- 4) AIOM-AIRO (Italy) 2008**
- 5) NCCN v.2 2011**





## TUMORI DELLA TESTA E DEL COLLO

*Coordinatore AIOM:* Adriano Paccagnella

*Estensori AIOM:* M. Benasso  
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A. Di Pilla  
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P. Ponticelli  
C. Soatti

# H&N guidelines

	metodology	pages	sites	Flow chart
ASCO	EB +++ Consensus ++	-	Solo larynx	no
<b>AIOM- AIRO</b>	<b>EB ++</b> <b>Consensus ++</b>	<b>38</b>	<b>All sites</b>	<b>no</b>
EHNS-ESMO- ESTRO	EB +++ Consensus +	3	General overview	no
NCCN	EB ++ Consensus +++	145	All sites	si

# **The goals for new multidisciplinary guidelines: a proposal of AIRO H&N Study Group**

- **To create an algorithm of LG AIOM/AIRO 2008**
- **To evaluate comparison with other guidelines**
- **Availability of a “file in ppt” as tool for surgeons, medical oncologists and radiotherapists**
- **To reconsider the “standard of care” of technology**
- **To assess recommendations on the best supportive care (→ which recommendation for amifostine?)**



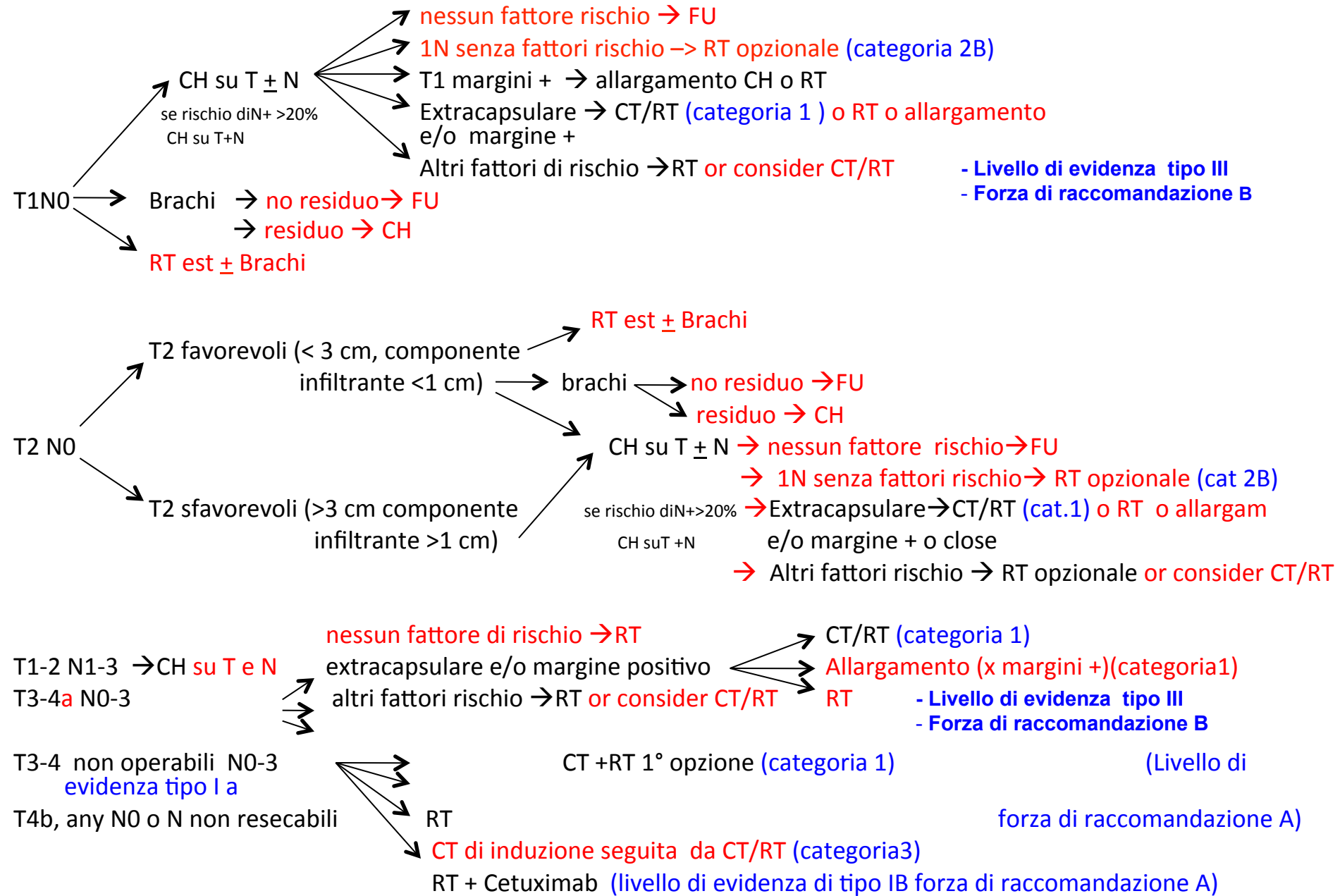
Associazione  
Italiana  
Radioterapia  
Oncologica

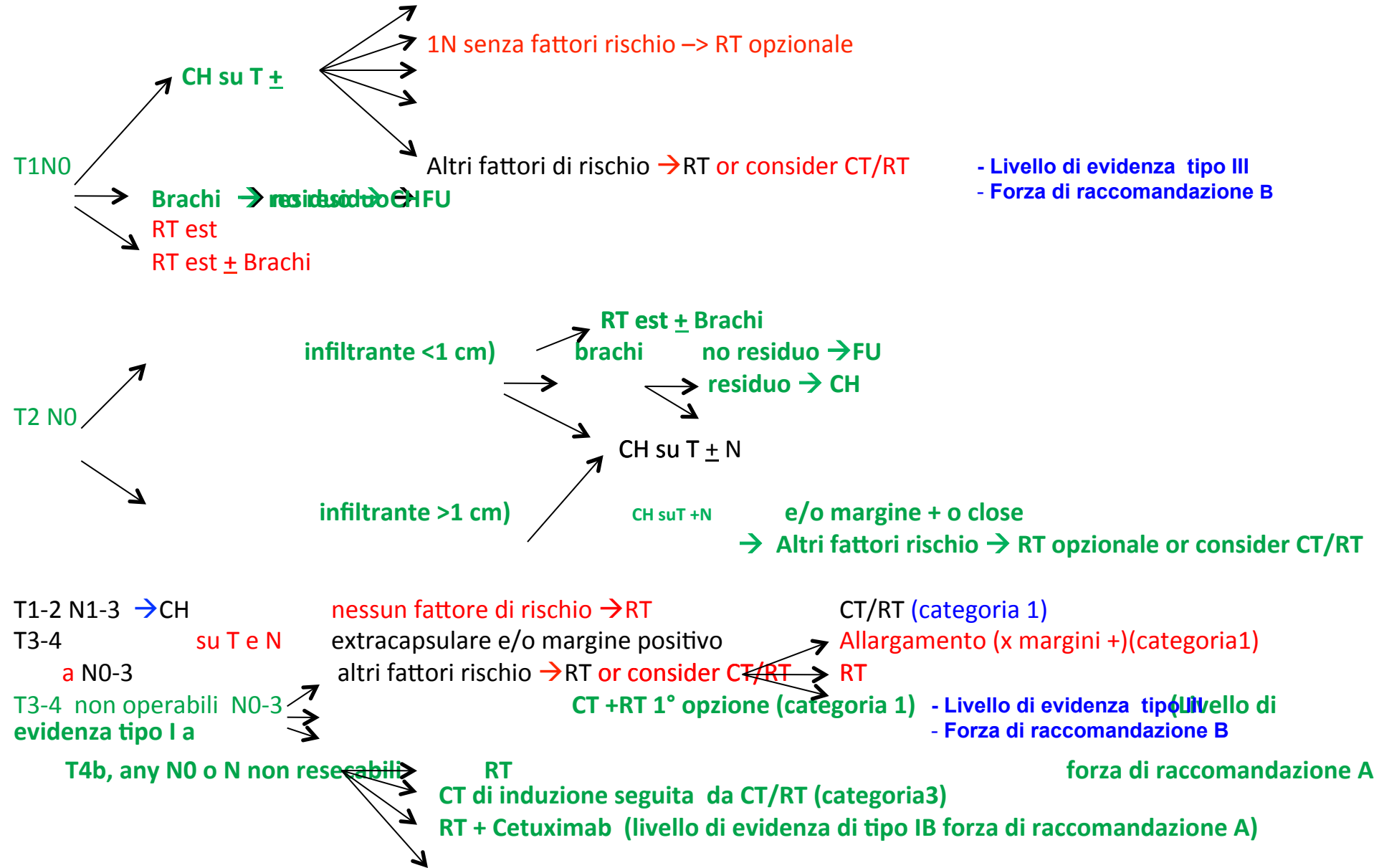


## ***FROM AIRO-AIOM to MULTIDISCIPLINARY GUIDELINES***

### **HEAD & NECK CANCER Diagnostic-therapeutic algorithm**

- **in black: guidelines AIRO-AIOM 2008**
- **in red: guidelines NCCN H&N 2011**
- **in blue: levels of evidence and recommendations**
- **in green: approval for recommendation**





# **AIRO – Head Neck Study Group**

## **AIRO – Head Neck Study Group**

**coordinator: S.Magrini (Brescia)**

- **Coordinator: Elvio Russi (Cuneo)**
- **Coordinator: Elvio Russi (Cuneo)**
- **Components:**
  - **ICOM (Novara)**
  - **Comapion (Novara)**
  - **L. Masini (Novara)**
  - **V. De Sanctis (La Sapienza – Roma)**
  - **A. Merlotti (Busto Arsizio)**
  - **M.G. Ruo Redda (Orbassano-Torino)**

# LEVEL OF EVIDENCE and RECOMMENDATION

TREATMENT STRATEGY	Level of evidence	grade
<u>→ IMRT</u>	Level 2	A
<u>→ Amifostine</u>	Level 2	C
agonist stimulation	Level 2	B
Gustatory stimulation	Level 3	D
lubrificantd/saliva substitutes	Level 2	B
Submandibular gland transfer	Level 2	B
Acupuncture	Level 2	D
Hyperbaric Oxygen	Level 4	D



**IMRT and amifostine in HNSCC:  
ongoing observational european trial**

- **Principal Investigator: Philippe Giraud,**
  - **Principal Investigator**

Hopital Georges Pompidou , Paris

**Primary end point:** efficacy of amifostine in further reduction of xerostomia in patients submitted to IMRT

**Secondary end-points:** mucositis rate, survival