



*Meta-Analysis of Chemotherapy  
in Head & Neck Cancer*

# MACH-NC & anti-EGFR therapy MA

A new individual patient data meta-analysis  
on locally advanced HNSCC

Jean-Pierre Pignon and Pierre Blanchard

On behalf of the HNC meta-analyses Secretariat

HNCIG meeting on October 7, 2016

# BACKGROUND

1. One positive trial – RT +/- cetuximab (Bonner et al), leading to widespread use of cetuximab in combination with RT for locally advanced disease.

2. Many negative trials, using different agents.

Request by multiple investigators to look for class effects and predictive factors, although most agents are not approved for clinical use.

3. Potentially interesting per se, and with respect to ongoing trials investigating the comparison between CRT (platinum) vs. BRT (cetuximab): RTOG 1016, De-escalate, TROG

# DESCRIPTION OF THE MATERIAL

26 randomized trials, corresponding to **5 892 patients** – 7 different drugs

	Number of trials	Number of patients
Monoclonal Ab anti-EGFR <b>addition</b> to RT ± CT	13	3 193
<b>CT vs.</b> monoclonal Ab anti-EGFR	5	1 290
Anti-EGFR TKI <b>addition</b> to RT ± CT	8	1 409
<b>Total</b>	<b>26</b>	<b>5 892</b>

Drug	Number of trials	Number of patients (%)
<b>Cetuximab</b>	<b>11</b>	<b>3213 (54.5%)</b>
Gefitinib	5	450 (7.6%)
Nimotuzumab	4	346 (5.9%)
Lapatinib	2	755 (12.8%)
Panitumumab	2	305 (5.2%)
Zalutumumab	1	619 (10.5%)
Erlotinib	1	204 (3.5%)
<b>Total</b>	<b>26</b>	<b>5892</b>

# YEAR & TYPE OF PUBLICATION

Year of publication	Number of trials
2010	4
2011	1
2012	2
2013	7
2014	6
2015	3
2016	2
Unpublished	1
<b>Total</b>	<b>26</b>

Type of publication	Number of trials
Abstract	8
Full paper	17
Unpublished	1
<b>Total</b>	<b>26</b>

# Support from HNCIG

1. Does HNCIG support such a project?
2. Are there specific items/analyses that HNCIG members would like us to consider and implement in the protocol? Do you know of additional trials (completed)?
3. Can HNCIG members from the relevant cooperative groups get in touch with us and help us get approval to collect the data?
  - a. From cooperative groups
  - b. From [industry partners](#)
4. Action items for MACH-NC team:
  - a. Drafting of the [protocol](#) – done by the end of the year
  - b. Start [data collection](#) early 2017
  - c. [Analysis](#) end of 2017 for [reporting \(investigator meeting\)](#) in 2018

# Overall strategy for the IPD MA in HNC

1. Perform the MA on anti-EGFR
2. Update MACH-NC and MARCH in parallel
3. Integrate all the results in a network meta-analysis

# Publications (see circulating list)

## **Anti-EGFR monoclonal antibody addition to RT $\pm$ CT**

Basavaraj C. et al. Cancer Biol Ther 2010; 10(7): 673-681  
Rodriguez M.O. et al. Cancer Biol Ther 2010; 9(5): 343-349  
Reddy B.K.M. et al. Oral oncology 2014; 50: 498-505  
Bonner J.A. et al. Lancet Oncol 2010; 11: 21-28  
Mesia R. et al. Ann Oncol 2013; 24: 448-453  
Ang K.K. et al. JCO 2014; 32(27): 2940-50  
Dietz A. et al. J Clin Oncol 32:5s, 2014 (suppl; abstr 6016<sup>^</sup>)  
Mesia R. et al. Lancet Oncol 2015; 16: 208-220  
Eriksen J.G. et al. Abstract Int J Radiat Oncol Biol Phys (2014)  
The agenio Cancer Hospital - NCT01301248 - Unpublished  
Koh et al. J Clin Oncol 2013;31: Abstract 6069  
Heukelom et al. BMC Cancer. 2013 Feb 22;13:84  
Bhatnagar et al. J Clin Oncol 30, 2012 (suppl; abstr e16012)

## **CT vs. anti-EGFR monoclonal antibody**

Ghi M.G. - Abstract ICHNO 2015  
Lefebvre J-L. et al. JCO 2013; 31(7): 853-859  
Giralt J. et al. Lancet Oncol 2015; 16: 221-232  
Magrini S.M. et al. JCO 2016; 34(5): 427-435  
Hitt R. et al. Annals of Oncology 25 (Supplement 4): iv340–iv356, 2014

## **Anti-EGFR TKI addition to RT $\pm$ CT**

Bhattacharya B. et al. Clin Cancer Investig J 2014; 3(2): 146-152  
Singh P.K. et al. Clin Cancer Investig J 2013; 2(1): 29-33  
Gregoire V. et al. Radiother Oncol 2011; 100: 62-69  
Martins R.G. et al. JCO 2013; 31(11): 1415-21  
Harrington K. et al. Eur J Cancer 2013; 49: 1609-18  
Harrington K. et al. J Clin Oncol. 2014;32(5s) Abstract 6005.  
Thariat J. et al. Clin Cancer Res. 2012 Sep 15;18(18):5123-33  
Nandwani et al. Journal of Radiation Oncology, Biology, Physics 2010;78(3Suppl 1):S105.

THANK YOU

Do not hesitate to contact us for any relevant question

[Jean-pierre.pignon@gustaveroussy.fr](mailto:Jean-pierre.pignon@gustaveroussy.fr)