#### Hutchings and Barrington

Limited vs advanced stage HL: same criteria different cut off?

### Early PET in limited stage HL

- First group for early PET-response adapted lymphoma therapy although
- Less data are available on the value of early PET than in advanced stage HL and aggressive NHL



Table 5. Predictive value of early interim FDG-PET according to stage and extranodal disease

	PET2 (qualitative)		
	Negative	Positive	Total
Early stage (I-IA)			
Progression			
No	26	4	30
Yes	0	1	1
Total	26	5	31
Advanced stage (HB-IV)			
Progression			
No	32	1	33
Yes	3	10	13
Total	35	11	48
No extranodal disease			
Progression			
No	51	5	58
Yes	3	4	7
Total	54	9	63
Extranodal disease			
Progression			
No	7	0	7
Yes	0	7	7
Total	35	7	14

Hutchings & Mikhaeel. Ann Oncol 2005 57 stage I-II patients Hutchings et al. Blood 2006 31 stage I-IIA patients

#### Reasons for low PPV

- The disease has an inherently very good prognosis
- Most patients receive radiotherapy to the initially involved nodes

**o**?

#### • • Early PET in advanced HL

#### • High NPV combined with High PPV• at least with ABVD



According to PET-2 (+vs.-) and IPS (0-2 vs 3-7)

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ORIGINAL REPORT

Early Interim 2-[<sup>18</sup>F]Fluoro-2-Deoxy-D-Glucose Positron Emission Tomography Is Prognostically Superior to International Prognostic Score in Advanced-Stage Hodgkin's Lymphoma: A Report From a Joint Italian-Danish Study

Andrea Gallamini, Martin Hutchings, Luigi Rigacci, Lena Specht, Francesco Merli, Mads Hansen, Caterina Patti, Annika Loft, Francesco Di Raimondo, Francesco D'Anore, Alberto Biggi, Umberto Vitolo, Caterina Stelitano, Rosario Sancetta, Livio Trentin, Stefano Luminari, Emilio Iannitto, Simonetta Viviani, Ivana Pierri, and Alessandro Levis



# What do we want from test?

High NPV desirable for de-escalation
High PPV desirable for intensification
Same criteria ? Different threshold

Meignan M, Gallamini A, Haioun C. Report on the first international workshop on interim-PET scan in lymphoma. Leuk.Lymphoma 2009;50:1257-1260.

## • • Deauville criteria

Score 1 no uptake Score 2 uptake ≤ mediastinum Score 3 uptake > mediastinum but ≤ liver Score 4 uptake > liver at any site Score 5 uptake > liver and new sites of disease

#### Score X:

new areas of uptake unlikely to be related to lymphoma

Meignan M, Gallamini A, Haioun C. Report on the first international workshop on interim-PET scan in lymphoma. Leuk.Lymphoma 2009;50:1257-1260.

# Advanced stage criteria

Score 1 no uptake Score 2 uptake ≤ mediastinum Score 3 uptake > mediastinum but ≤ liver Score 4: uptake > liver at any site Score 5 uptake > liver and new sites of disease

Score X:

new areas of uptake unlikely to be related to lymphoma

## Early stage criteria

Score 1 no uptake Score 2 uptake ≤ mediastinum Score 3 uptake > mediastinum but ≤ liver Score 4: uptake > liver at any site Score 5 uptake > liver and new sites of disease

Score X:

new areas of uptake unlikely to be related to lymphoma

## Reporting

- ? Limited vs advanced disease
- ? HD vs DLBCL
- ? Different therapy regimes
- ? De-escalation vs intensification

• Same criteria BUT different cut off

# Image interpretation

Standardisation of reporting Reproducibility Minimal residual uptake, however defined may have different significance according to ....