

# PRIMARY TREATMENT OF EARLY BREAST CANCER ST. GALLEN 2017

ESCALATING AND DE-ESCALATING TREATMENT  
IN EARLY BREAST CANCER ACROSS SUBTYPES  
AND TREATMENT MODALITIES

*Consensus and Controversy*

# International Consensus Panel 2017

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Andrew Tutt (UK)

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## Expert Opinion on Areas of Controversy

- ❖ Escalation and de-escalation of treatment are major issues for management of early breast cancer
- ❖ Evidence from randomized clinical trials does not cover all controversies that arise in treating individuals
- ❖ The opinion of the panel members is used to implement guidance for controversial issues
- ❖ When data are lacking, expert opinion can be used
- ❖ This is the unique feature of the St. Gallen International Consensus

## Panelists' Answers

- ❖ Questions have been prospectively reviewed by the panelists and revised to be as clear as possible.
- ❖ Panelists are asked to answer either  
1 Yes or 2 No  
for most questions  
or in certain cases  
select from mutually exclusive choices, 1, 2, 3, 4, etc.
- ❖ Option for Abstain if Panelist has insufficient data, lack of specific expertise on the issue, or conflict of interest. Do not hesitate to abstain, if appropriate.

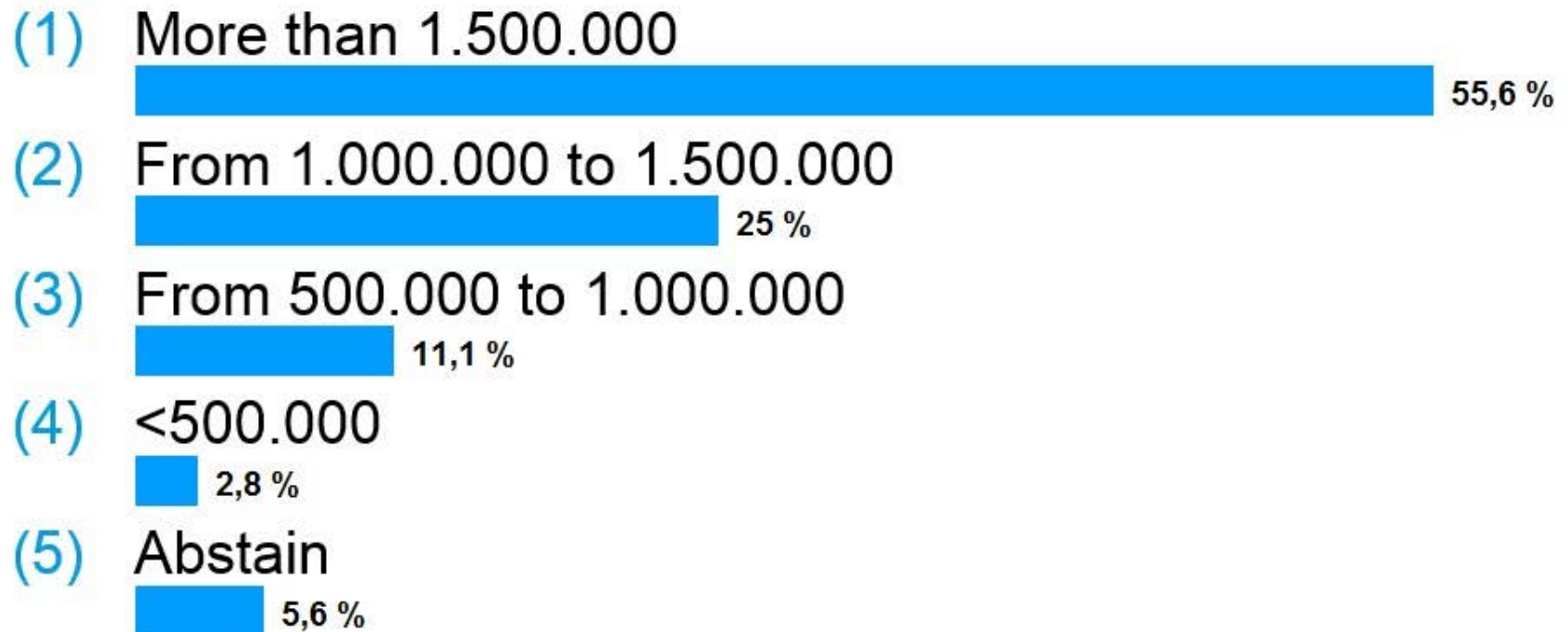
## Practice Question

T1. The venue of the 2017 St.Gallen International Breast Cancer Conference is in Vienna/Austria?



## Practice Question

T2. The population of Vienna is (select one):



# LET'S START

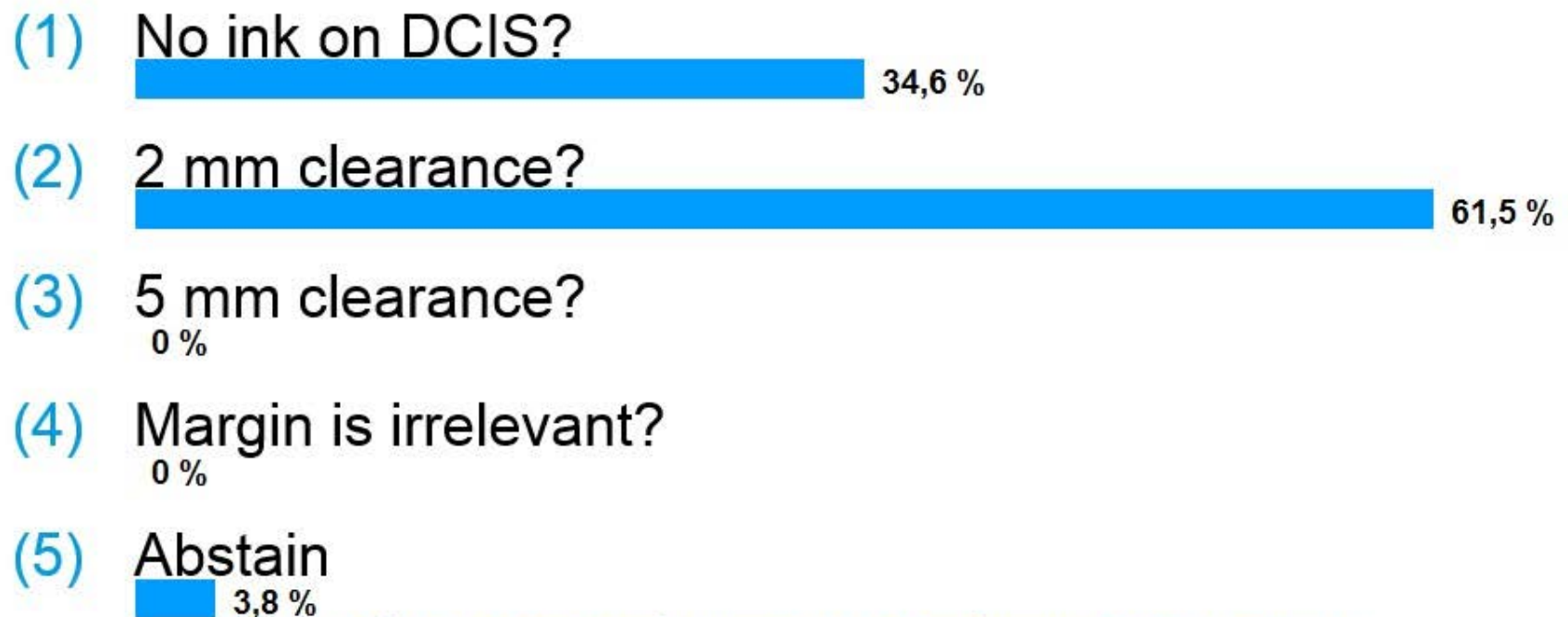
Escalating and De-escalating

# **APPROPRIATE MARGINS IN PRIMARY SURGERY AND IN SURGERY FOLLOWING NEO- ADJUVANT SYSTEMIC THERAPY**



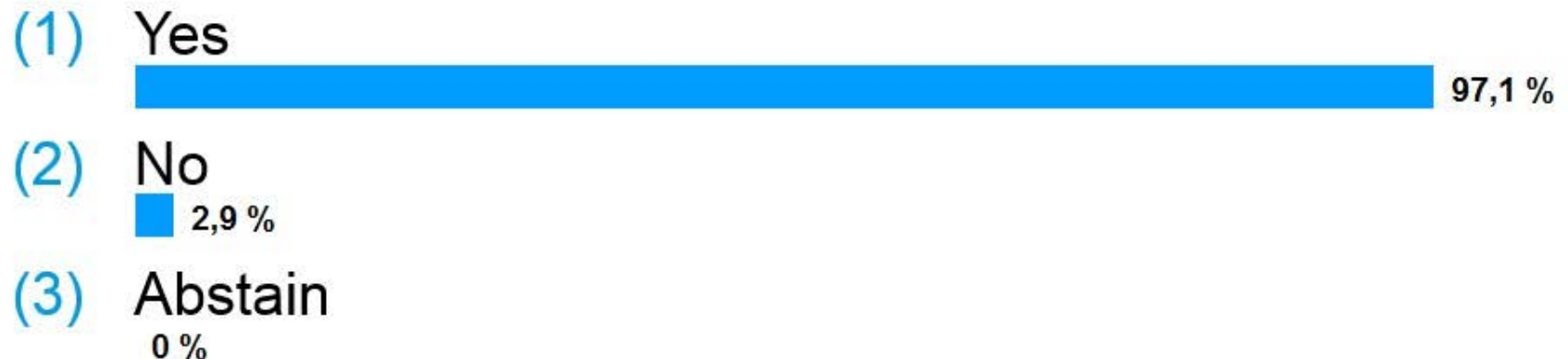
# Breast Conserving Surgery of the Primary (DCIS)

1. In women undergoing breast conserving surgery for DCIS and planned whole breast radiation treatment which **minimum** margin width is sufficient to avoid re-excision?



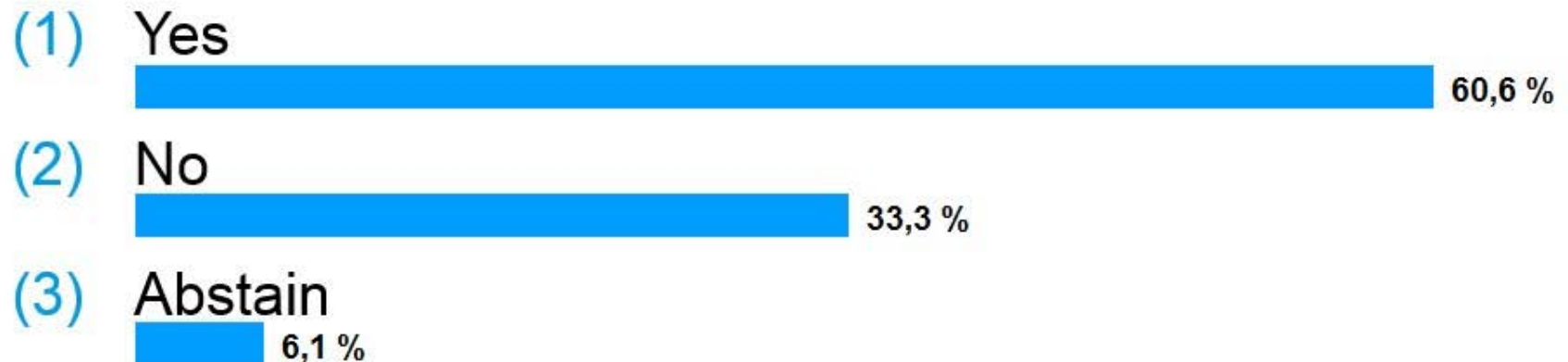
## Primary Surgery of Multi-focal/ Multicentric Disease

2. >2 tumor foci contained in one 'quadrant' of the breast (**multifocal**) can be treated with breast conservation, provided margins are clear and adequate RT is planned.



## Primary Surgery of Multi-focal/ Multicentric Disease

3. Tumor foci in more than one 'quadrant' of the breast (**multicentric**) can be treated with breast conservation, provided margins are clear and adequate RT is planned.



# Surgery of the Primary Tumor

4. Should the margin required be dependent on tumor biology?



# Surgery of the Primary (IBC) after Neo-Adjuvant Systemic Therapy

9. In women undergoing breast conserving surgery after neo-adjuvant chemotherapy and proceeding to standard radiation with or without additional adjuvant systemic therapy.






Should the entire area of the original primary be resected after downstaging?



# Surgery of the Primary (IBC) after Neo-Adjuvant Systemic Therapy

10. In women undergoing breast conserving surgery after neo-adjuvant chemotherapy and proceeding to standard radiation with or without additional adjuvant systemic therapy.



Which is the minimum acceptable surgical margin to avoid re-excision (with multifocal residual disease in the pathological specimen)?

- |  |  |
|--|--|
| (1) No ink on invasive tumor or DCIS?<br> 55,2 % | (4) > 5mm clearance?<br> 3,4 % |
| (2) 2 mm clearance?<br> 27,6 %                  | (5) Margin is irrelevant?<br>0 %   |
| (3) > 2 – 5 mm clearance?<br> 6,9 %             | (6) Abstain<br> 6,9 %         |

# Surgery of the Primary (IBC) after Neo-Adjuvant Systemic Therapy

11. In women undergoing breast conserving surgery after neo-adjuvant chemotherapy and proceeding to standard radiation with or without additional adjuvant systemic therapy.

Which is the *minimum* acceptable surgical margin to avoid re-excision (without multifocal residual disease in their pathological specimen)?

- |   |                                  |
|---|----------------------------------|
| (1) No ink on invasive tumor or DCIS?<br> 95,8 % | (4) > 5mm clearance?<br>0 %      |
| (2) 2 mm clearance?<br> 4,2 %                  | (5) Margin is irrelevant?<br>0 % |
| (3) > 2 – 5 mm clearance?<br>0 %  | (6) Abstain<br>0 %               |

# Surgery of the Primary (IBC) after Neo-Adjuvant Systemic Therapy

12. In women undergoing breast conserving surgery after neo-adjuvant chemotherapy and proceeding to standard radiation with or without additional adjuvant systemic therapy.

Is nipple-sparing mastectomy safe after neo-adjuvant treatment?





Escalating and De-escalating

# WHEN CAN AXILLARY SURGERY BE REDUCED?

## Surgery of the Axilla

13. In patients with macro-metastases in 1-2 sentinel nodes, completion of axillary dissection can safely be **omitted** following:

Mastectomy (no radiotherapy to lymph nodes planned)



# Surgery of the Axilla

14. In patients with macro-metastases in 1-2 sentinel nodes, completion of axillary dissection can safely be **omitted** following:

Mastectomy (radiotherapy to lymph nodes planned)



## Surgery of the Axilla

15. In patients with macro-metastases in 1-2 sentinel nodes, completion of axillary dissection can safely be **omitted** following:

Conservative resection with radiotherapy using standard tangents



# Surgery of the Axilla

16. In patients with macro-metastases in 1-2 sentinel nodes, completion of axillary dissection can safely be **omitted** following:

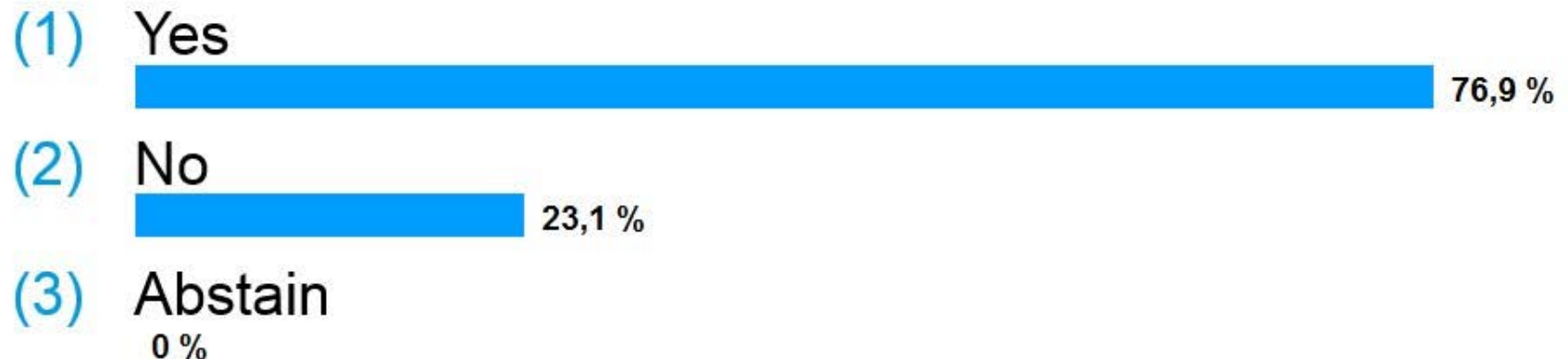
Conservative resection with radiotherapy using high tangents



# Surgery of the Axilla

17. In patients with macro-metastases in 1-2 sentinel nodes, completion of axillary dissection can safely be **omitted** following:

Irrespective of tumor biology (LVI, ER-, grade 3 etc.)



# Surgery of the Axilla following Neo-Adjuvant Chemotherapy

18. In a patient who is clinically (at palpation and US)  
node-negative at diagnosis:

Is SN biopsy appropriate?



# Surgery of the Axilla in the context of Neo-Adjuvant Chemotherapy

19. In a patient who is clinically (at palpation and US) node-negative at diagnosis:

When is the best time point for SN biopsy?

- (1) Before the start of neo-adjuvant chemo  
20 %
- (2) After neo-adjuvant chemo  
60 %
- (3) Either before or after chemo are valid options  
16,7 %
- (4) Abstain  
3,3 %



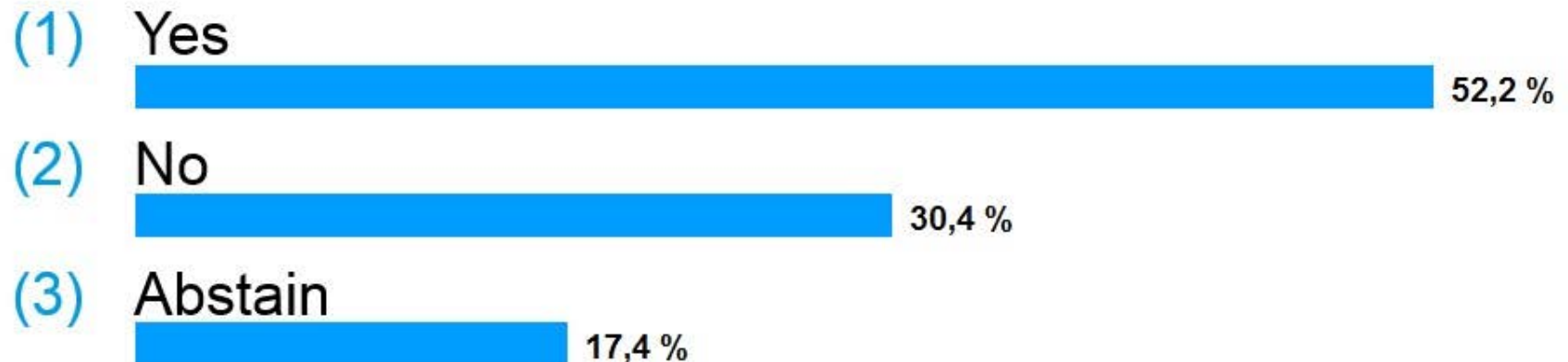
## Surgery of the Axilla following Neo-Adjuvant Chemotherapy

20. In a patient who is clinically node-positive at diagnosis and who downstages after chemotherapy:  
Is SN biopsy appropriate with 1-2 LN detected?



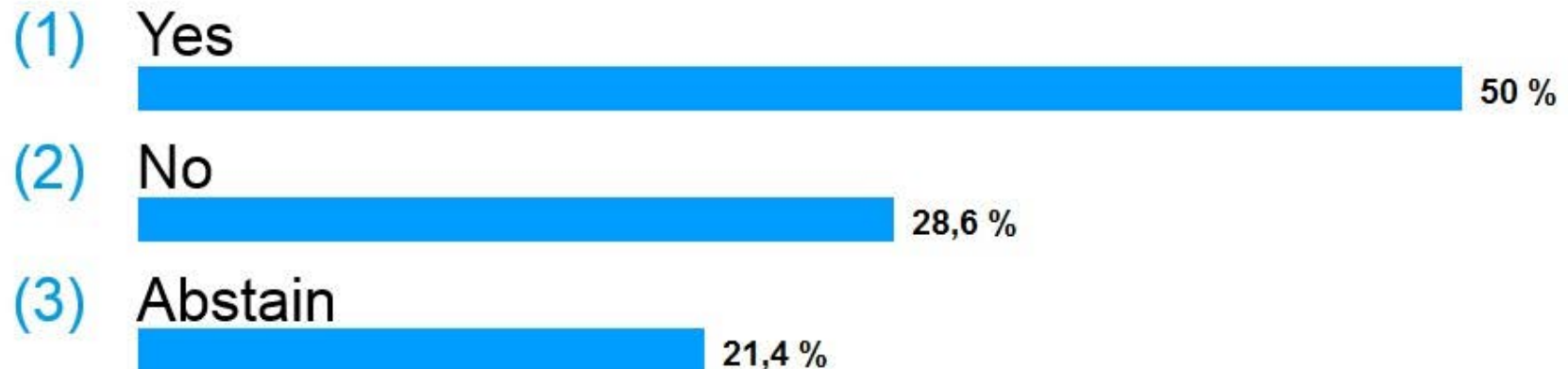
## Surgery of the Axilla following Neo-Adjuvant Chemotherapy

21. In a patient who is clinically node-positive at diagnosis and who downstages after chemotherapy:  
Is SN biopsy appropriate only in selected cases such as:  
More than 2 SN detected?



## Surgery of the Axilla following Neo-Adjuvant Chemotherapy

23. In a patient who is clinically node-positive at diagnosis and who downstages after chemotherapy: Is SN biopsy appropriate only in selected cases such as: Clipping/seeding of involved nodes at diagnosis and targeted removal?



# Surgery of the Axilla following Neo-Adjuvant Chemotherapy

25. In a patient who is clinically node-positive at diagnosis and who downstages after chemotherapy:  
Can ALND be avoided if micrometastasis is present in the SN?



## Surgery of the Axilla following Neo-Adjuvant Chemotherapy

26. In a patient who is clinically node-positive at diagnosis and who downstages after chemotherapy:  
Can ALND be avoided if a single SN is positive (macrometastasis)?



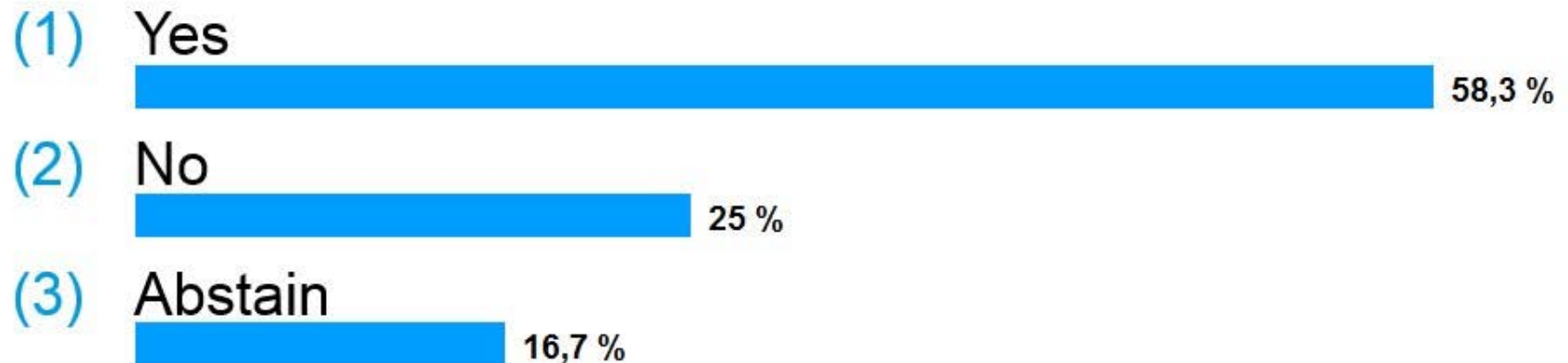
Escalating and De-escalating

# **IN WHICH CLINICAL SCENARIO MAY RADIO THERAPY COURSES BE SHORTENED?**

# Hypofractionated Breast Irradiation

27. Following breast conserving surgery, hypofractionated whole breast irradiation is a standard of care in:

All patients



# Hypofractionated Breast Irradiation

28. Following breast conserving surgery, hypofractionated whole breast irradiation is a standard of care in:  
Patients over 50 years

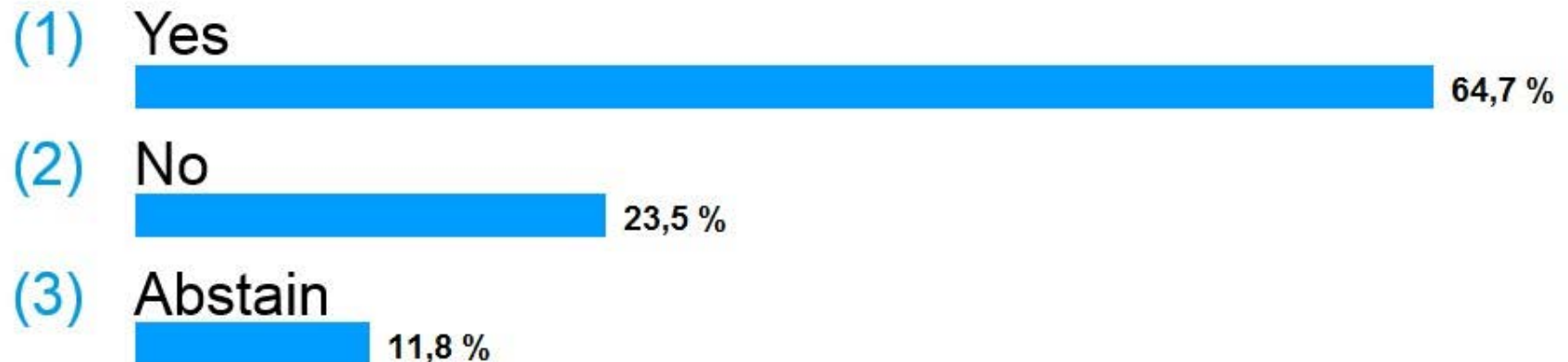




## Partial Breast Irradiation

32. Following breast conserving surgery, partial breast irradiation may be used:

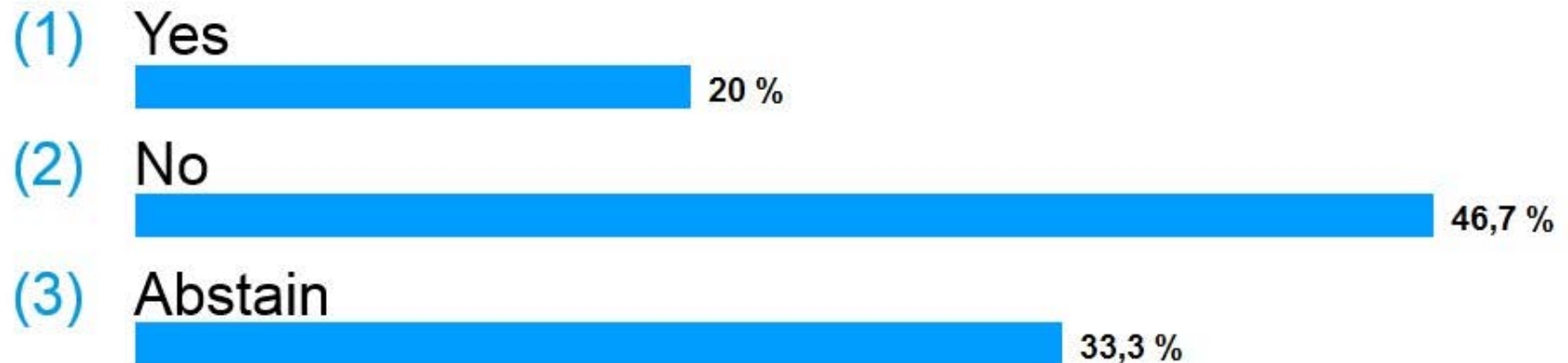
As the definitive irradiation, without whole breast irradiation in ASTRO/ESTRO “suitable” patients?



# Partial Breast Irradiation

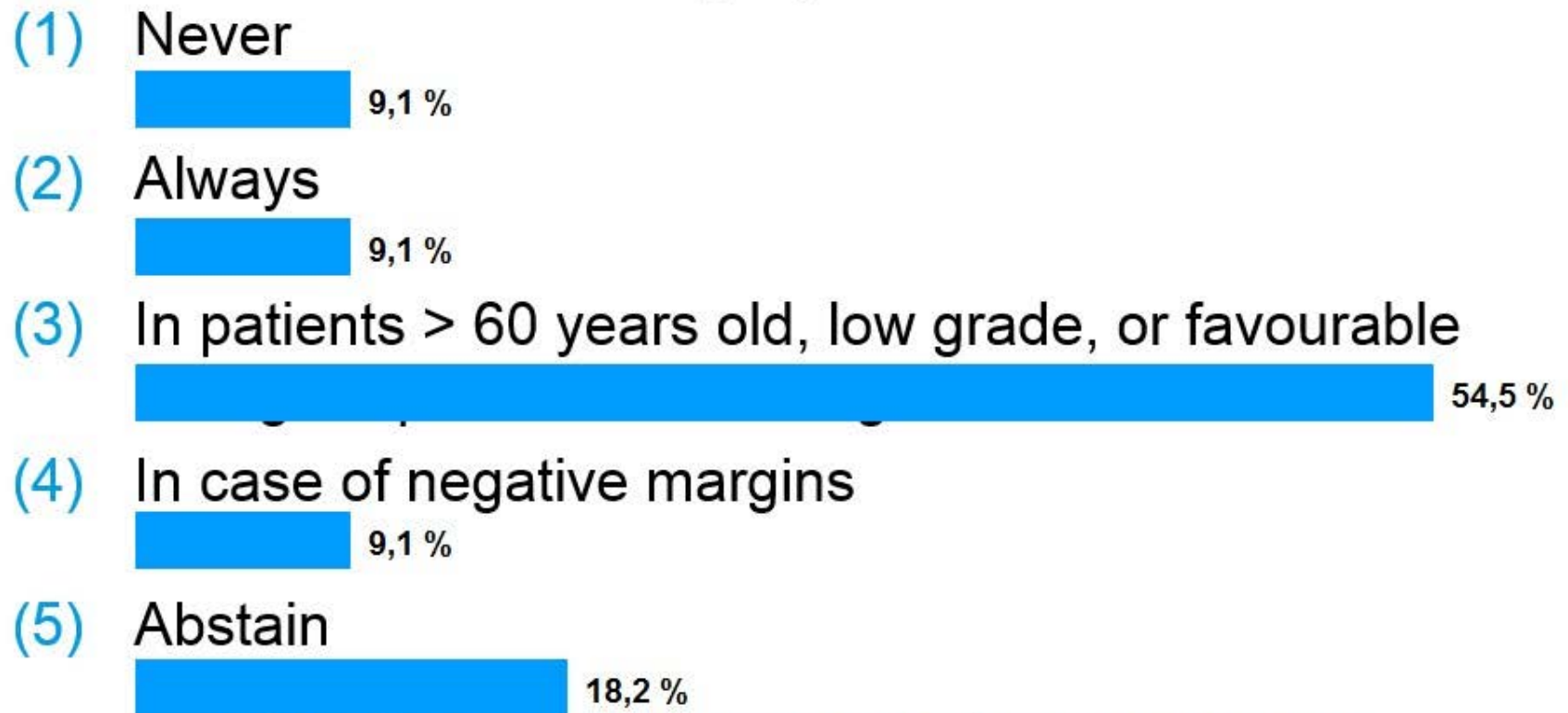
33. Following breast conserving surgery, partial breast irradiation may be used:

As the definitive irradiation, without whole breast irradiation in ASTRO “cautionary” / ESTRO “intermediate” patients?



# “Boost” Radiotherapy to Primary Tumor Bed

40. “Boost” Radiotherapy to Primary Tumor Bed after Breast Conservative Surgery can be omitted



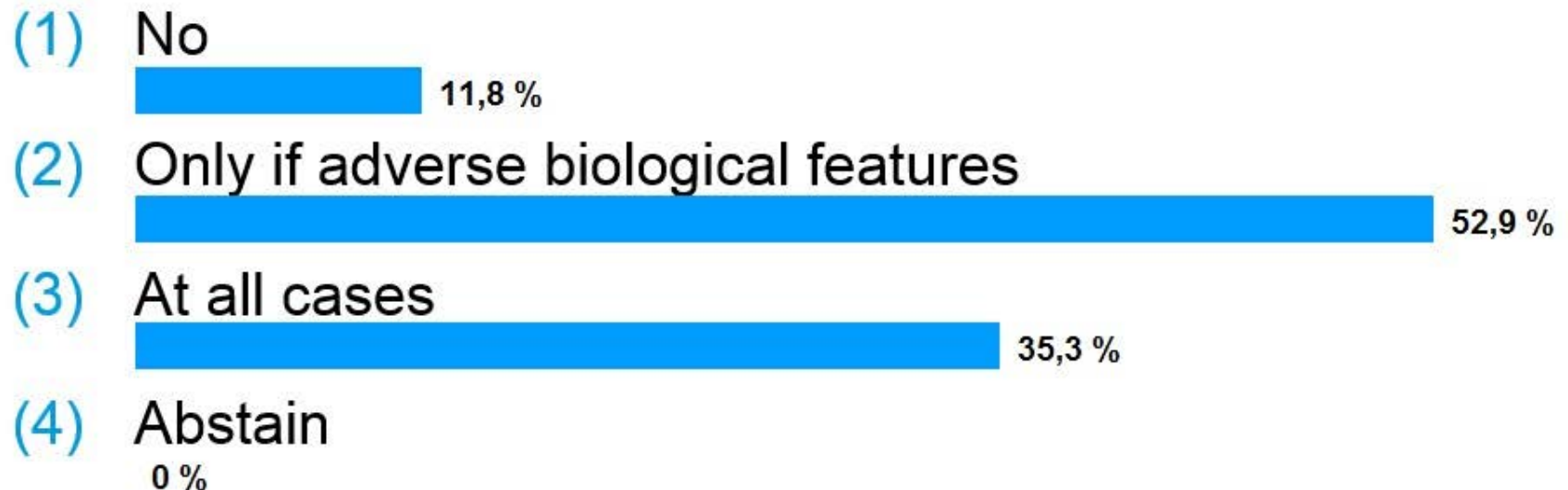
Escalating and De-escalating

# WHEN SHOULD RADIOTHERAPY VOLUMES BE EXPANDED?

## Regional Node Irradiation

41. Following breast conserving surgery, radiation should include regional nodes:


If number of positive nodes is 1-3



## Regional Node Irradiation

42. Following breast conserving surgery, radiation should include regional nodes:

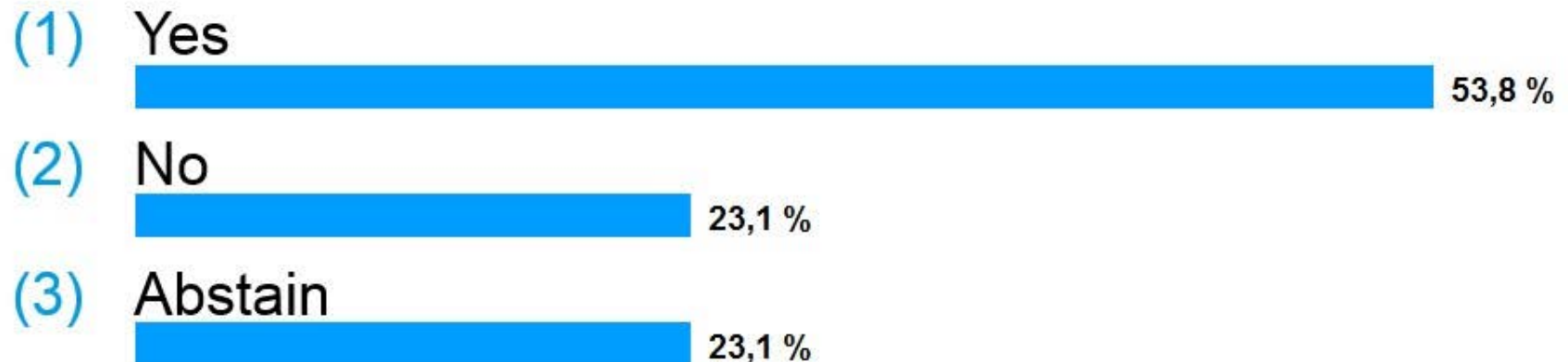
If number of positive nodes is 4 or more

- (1) No  
0 %
  - (2) Only if adverse biological features  
0 %
  - (3) At all cases  
100 %
  - (4) Abstain  
0 %
- 

## Radiation Therapy: After Mastectomy

44. Should post mastectomy RT (chest wall and regional nodes) be standard for patients with:

T size  $\geq$  5 cm and N0?



## Radiation Therapy: After Mastectomy

45. Should post mastectomy RT (chest wall and regional nodes) be standard for patients with:  
N+ 1 to 3 all patients?





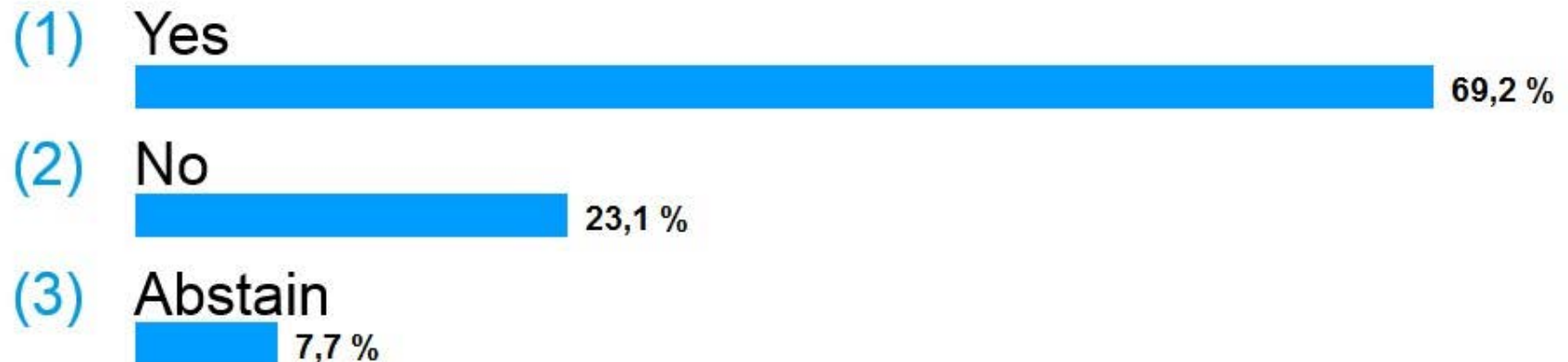
## Radiation Therapy: After Mastectomy

46. Should post mastectomy RT (chest wall and regional nodes) be standard for patients with:  
N+ 1 to 3 with adverse pathology?



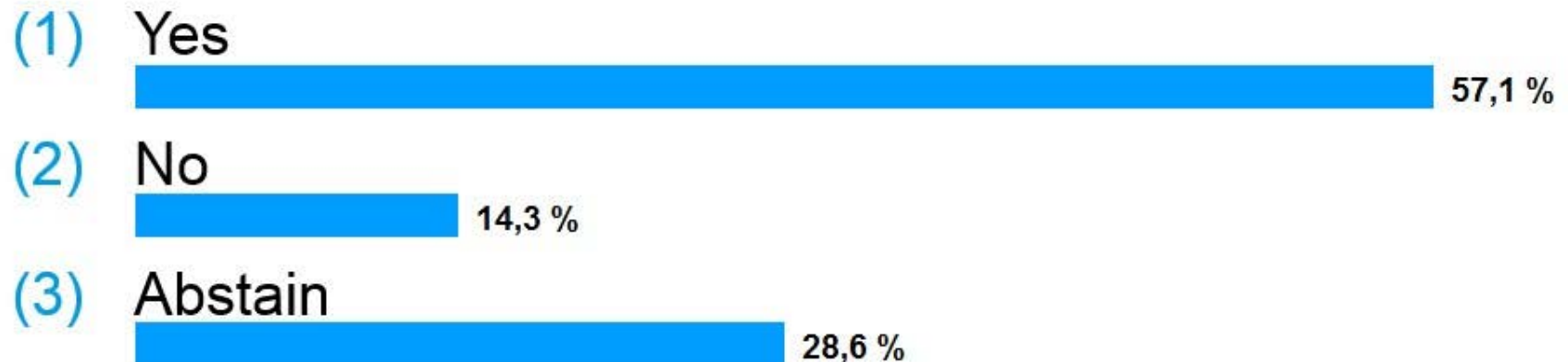
## Radiation Therapy: After Mastectomy

47. Should post mastectomy RT (chest wall and regional nodes) be standard for patients with:  
N+ 1 to 3 at young age (< 40 years)?





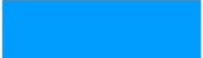
## Radiation Therapy: After Mastectomy

48. Should post mastectomy RT (chest wall and regional nodes) be standard for patients with:  
Positive sentinel node biopsy but no axillary dissection?



# Radiation to Breast Following Neo-Adjuvant Systemic Therapy

50. Should follow the stage

- (1) Before neo-adjuvant therapy?  
 11,1 %
- (2) After neo-adjuvant therapy?  
 0 %
- (3) Should take into account the stage *before and after*  
 77,8 %
- (4) Can be omitted in women with pCR after NAC?  
 11,1 %
- (5) Abstain  
 0 %

Escalating and De-escalating

**WHEN IS TRADITIONAL  
PATHOLOGY (STAGE, GRADE,  
LVI, ER/PR/HER2) NOT  
INFORMATIVE ENOUGH?**

## Pathology: Subtypes

51. If derived using IHC, distinction between 'Luminal A-like' and 'Luminal B-like' (HER2 neg.):

Describes important categories in the biology of luminal breast cancer



## Pathology: Subtypes

52. If derived using IHC, distinction between 'Luminal A-like' and 'Luminal B-like' (HER2 neg.):

Should be used for therapy decisions



## Pathology: Subtypes

53. If derived using IHC, distinction between 'Luminal A-like' and 'Luminal B-like' (HER2 neg.):

Generates working categories but should not be used for clinical decisions due to low analytical validity

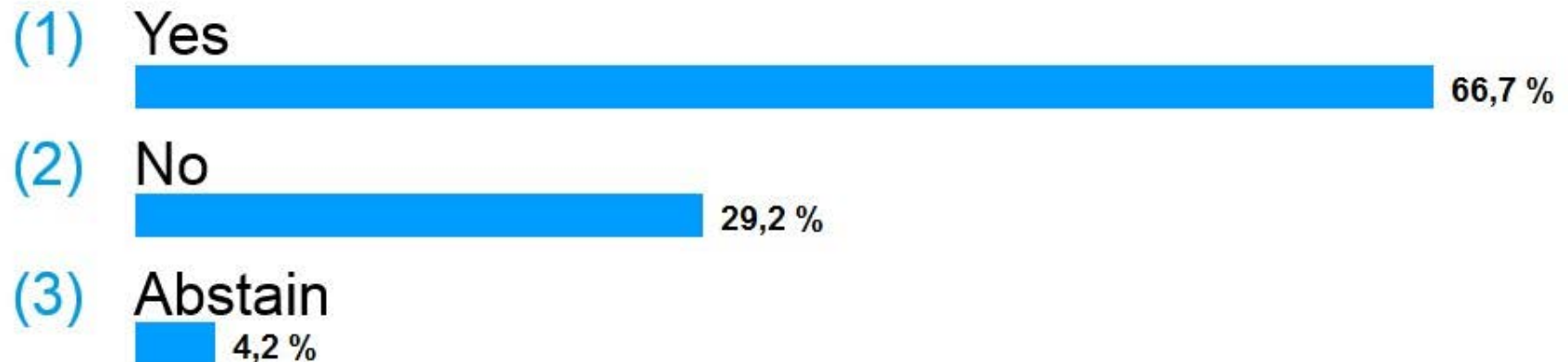




## Pathology: Subtypes

54. Distinction between 'Luminal A-like' and 'Luminal B-like' (HER2 neg.) can be derived:

Using IHC (ER, PR and grading) to approximate multigene testing



## Pathology: Subtypes

55. Distinction between 'Luminal A-like' and 'Luminal B-like' (HER2 neg.) can be derived:

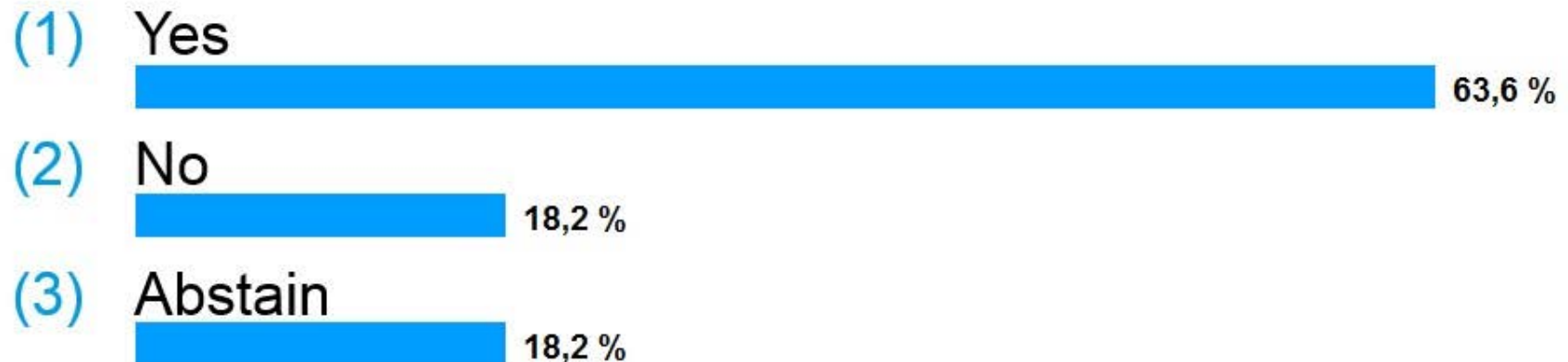
Using ER, PR and 'high' Ki67



## Pathology: Subtypes

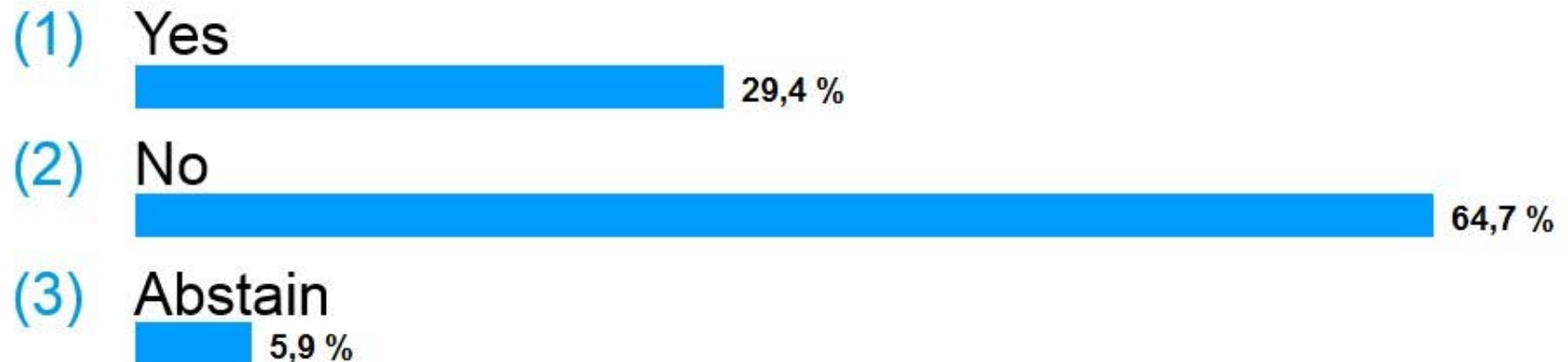
57. Distinction between 'Luminal A-like' and 'Luminal B-like' (HER2 neg.) can be derived:

Subtype can be more appropriately determined by multi-gene tests (when available)?



## Pathology: TILs

58. Should the evaluation of tumor-infiltrating lymphocytes (TILs) be reported in the pathology report of Triple-Negative and HER2 positive EBC?



# Multi-Gene Signatures and Chemotherapy: Node-Negative Patients

59. Is there a role for multi-gene testing in node-negative, pT1a, pT1b, ER positive, PgR positive, HER2 negative, low grade, low Ki67 breast cancer?

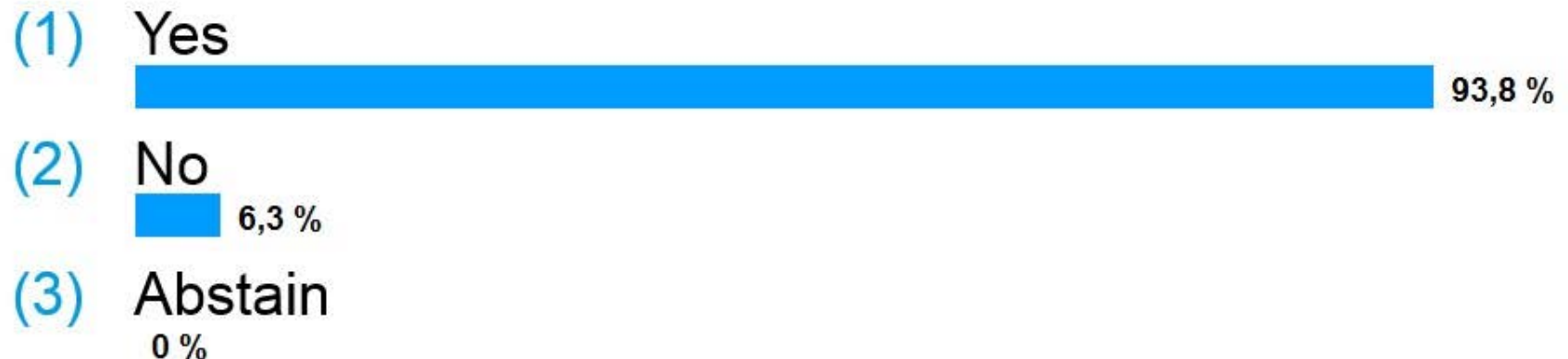


# Multi-Gene Signatures and Chemotherapy: Node-Negative Patients

60. In a patient with ER + /HER2 negative clinically valuable information on **prognosis** and risk helping us to decide to omit chemotherapy may be provided by:

Oncotype DX<sup>®</sup> RS

Prognosis: Years 1-5?

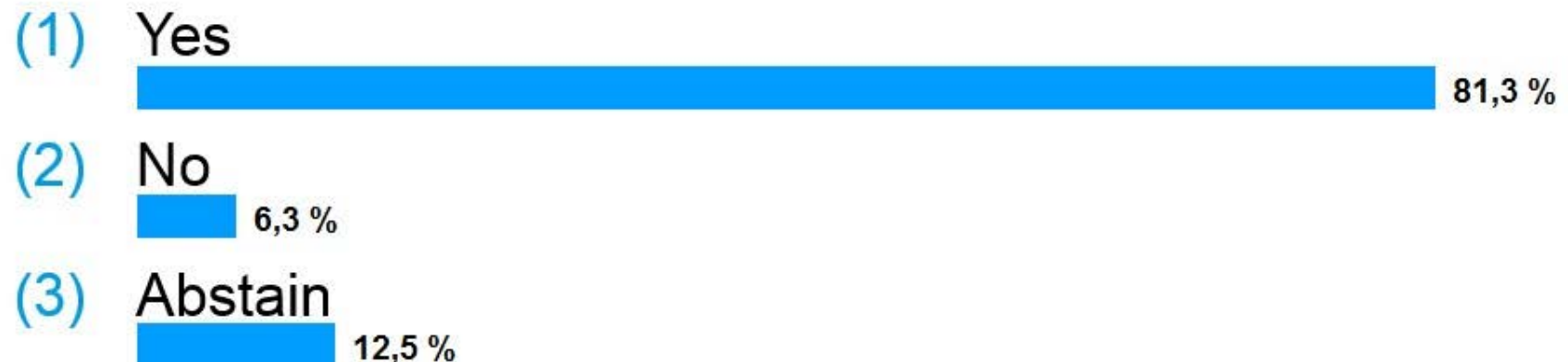


# Multi-Gene Signatures and Chemotherapy: Node-Negative Patients

62. In a patient with ER + /HER2 negative clinically valuable information on **prognosis** and risk helping us to decide to omit chemotherapy may be provided by:

MammaPrint 70<sup>®</sup>

Prognosis: Years 1-5?



# Multi-Gene Signatures and Chemotherapy: Node-Negative Patients

64. In a patient with ER + /HER2 negative clinically valuable information on **prognosis** and risk helping us to decide to omit chemotherapy may be provided by:

PAM-50 ROR Score

Prognosis: Years 1-5?





# Multi-Gene Signatures and Chemotherapy: Node-Negative Patients

66. In a patient with ER + /HER2 negative clinically valuable information on **prognosis** and risk helping us to decide to omit chemotherapy may be provided by:

EndoPredict® (EpClin)

Prognosis: Years 1-5?

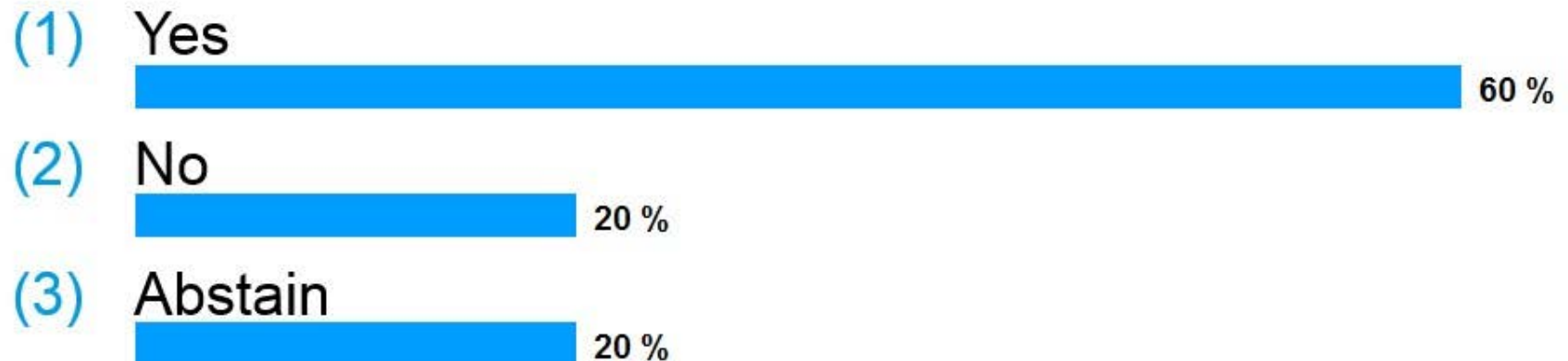


# Multi-Gene Signatures and Chemotherapy: Node-Negative Patients

68. In a patient with ER + /HER2 negative clinically valuable information on **prognosis** and risk helping us to decide to omit chemotherapy may be provided by:

## Breast Cancer Index

Prognosis: Years 1-5?

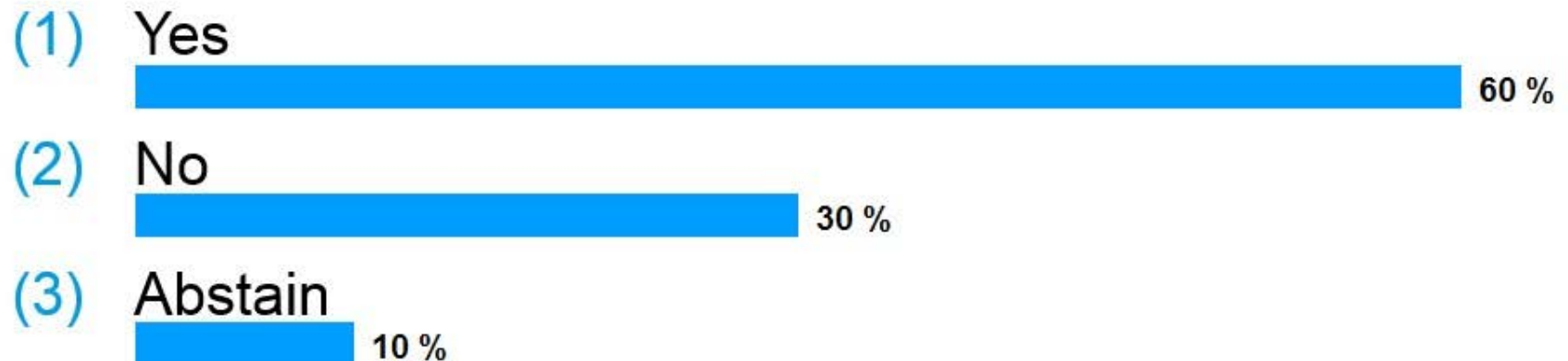


# Multi-Gene Signatures and Chemotherapy: Node-Positive Patients

70. In a patient with ER + /HER2 negative clinically valuable information on **prognosis** and risk helping us to decide to omit chemotherapy may be provided by:

Oncotype DX<sup>®</sup> RS

Prognosis: Years 1-5?

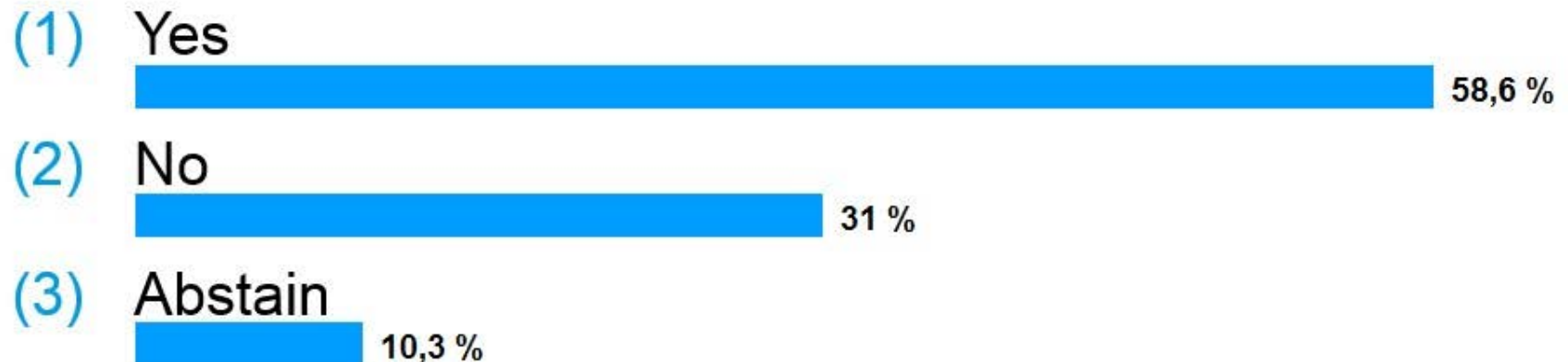


# Multi-Gene Signatures and Chemotherapy: Node-Positive Patients

71. In a patient with ER + /HER2 negative clinically valuable information on **prognosis** and risk helping us to decide to omit chemotherapy may be provided by:

Oncotype DX<sup>®</sup> RS

Chemotherapy?

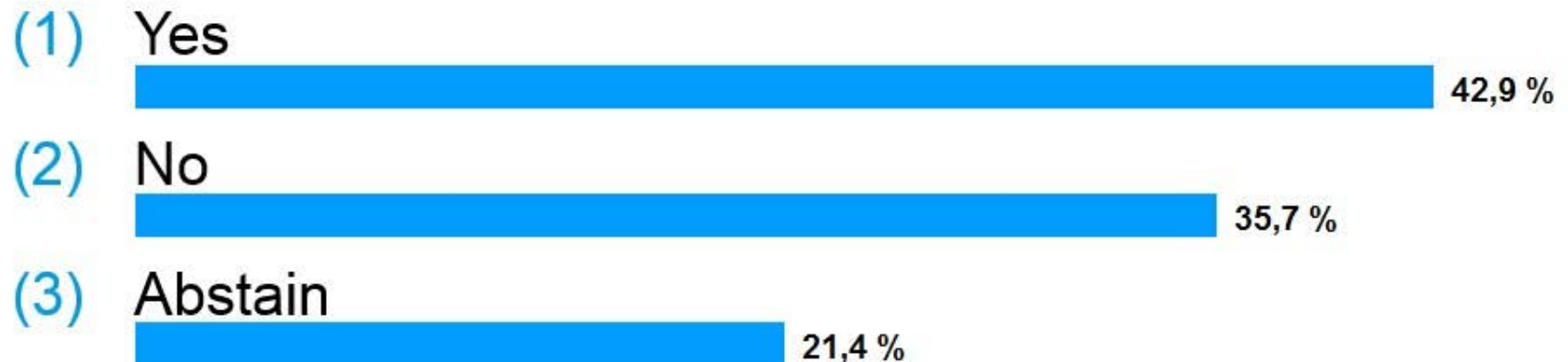


# Multi-Gene Signatures and Chemotherapy: Node-Positive Patients

72. In a patient with ER + /HER2 negative clinically valuable information on **prognosis** and risk helping us to decide to omit chemotherapy may be provided by:

MammaPrint 70<sup>®</sup>

Prognosis: Years 1-5?



# Multi-Gene Signatures and Chemotherapy: Node-Positive Patients

73. In a patient with ER + /HER2 negative clinically valuable information on **prognosis** and risk helping us to decide to omit chemotherapy may be provided by:

MammaPrint 70<sup>®</sup>

Chemotherapy?



# Multi-Gene Signatures and Chemotherapy: Node-Positive Patients

74. In a patient with ER + /HER2 negative clinically valuable information on **prognosis** and risk helping us to decide to omit chemotherapy may be provided by:

## PAM-50 ROR Score

Prognosis: Years 1-5?



# Multi-Gene Signatures and Chemotherapy: Node-Positive Patients

75. In a patient with ER + /HER2 negative clinically valuable information on **prognosis** and risk helping us to decide to omit chemotherapy may be provided by:

## PAM-50 ROR Score

Chemotherapy?



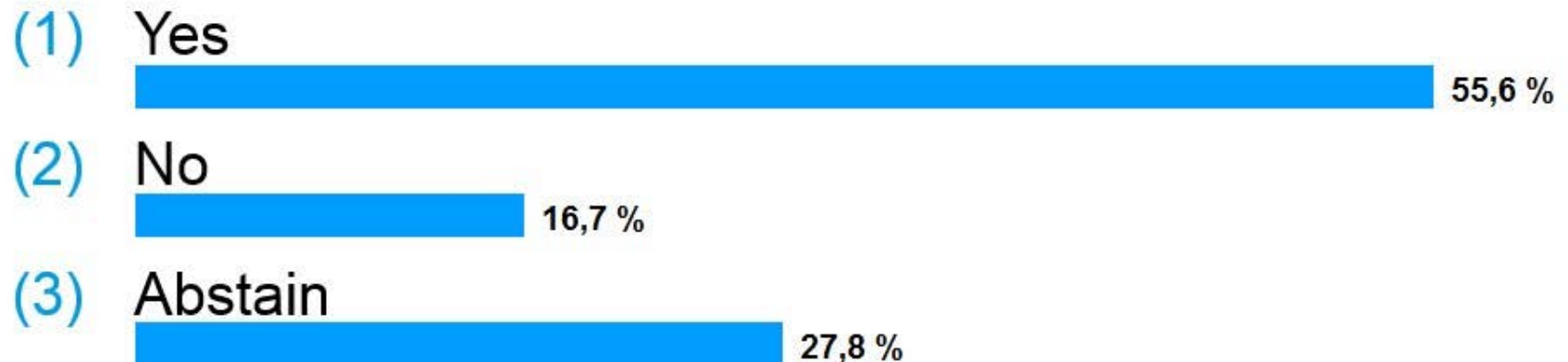


# Multi-Gene Signatures and Chemotherapy: Node-Positive Patients

76. In a patient with ER + /HER2 negative clinically valuable information on **prognosis** and risk helping us to decide to omit chemotherapy may be provided by:

EndoPredict® (EpClin)

Prognosis: Years 1-5?

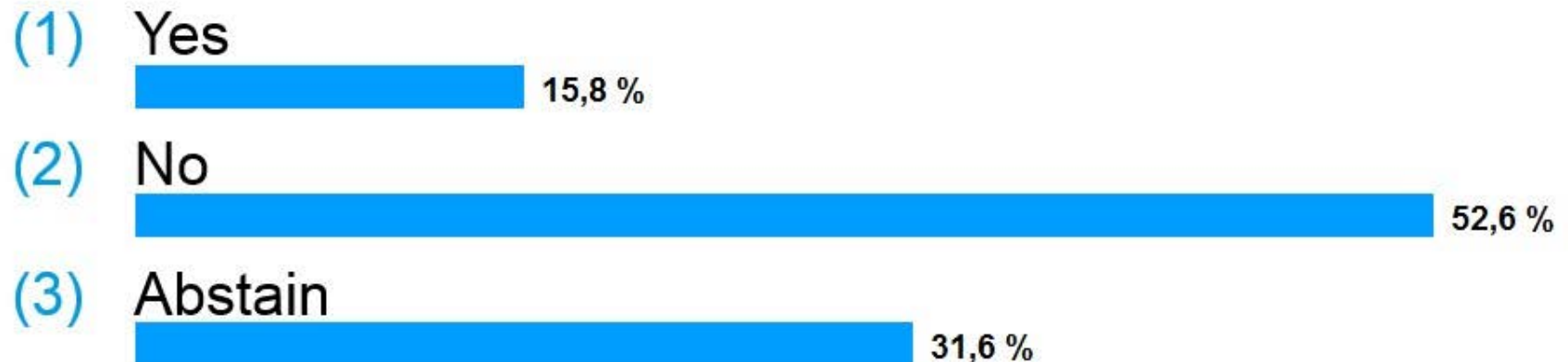


# Multi-Gene Signatures and Chemotherapy: Node-Positive Patients

77. In a patient with ER + /HER2 negative clinically valuable information on **prognosis** and risk helping us to decide to omit chemotherapy may be provided by:

EndoPredict® (EpClin)

Chemotherapy?

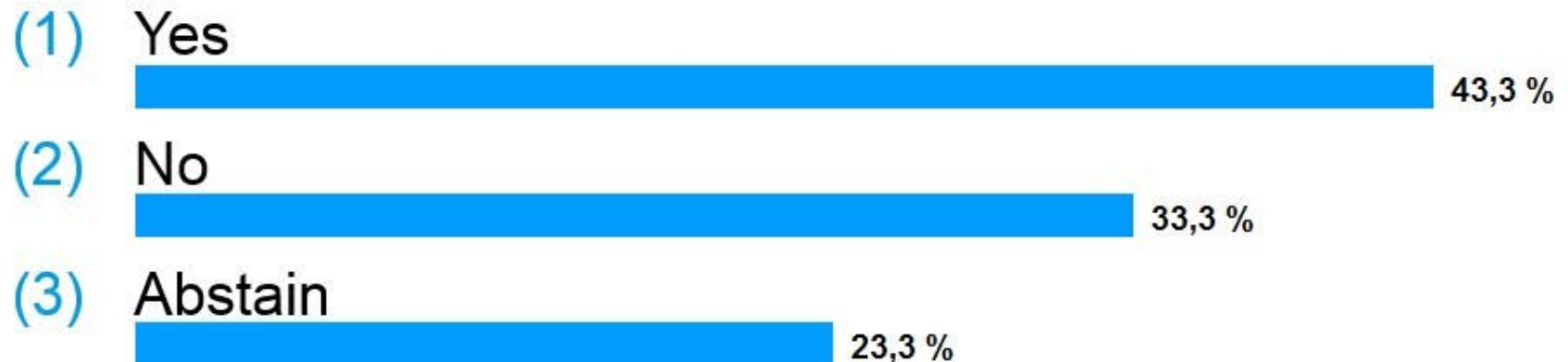


# Multi-Gene Signatures and Chemotherapy: Node-Positive Patients

78. In a patient with ER + /HER2 negative clinically valuable information on **prognosis** and risk helping us to decide to omit chemotherapy may be provided by:

## Breast Cancer Index

Prognosis: years 1-5?

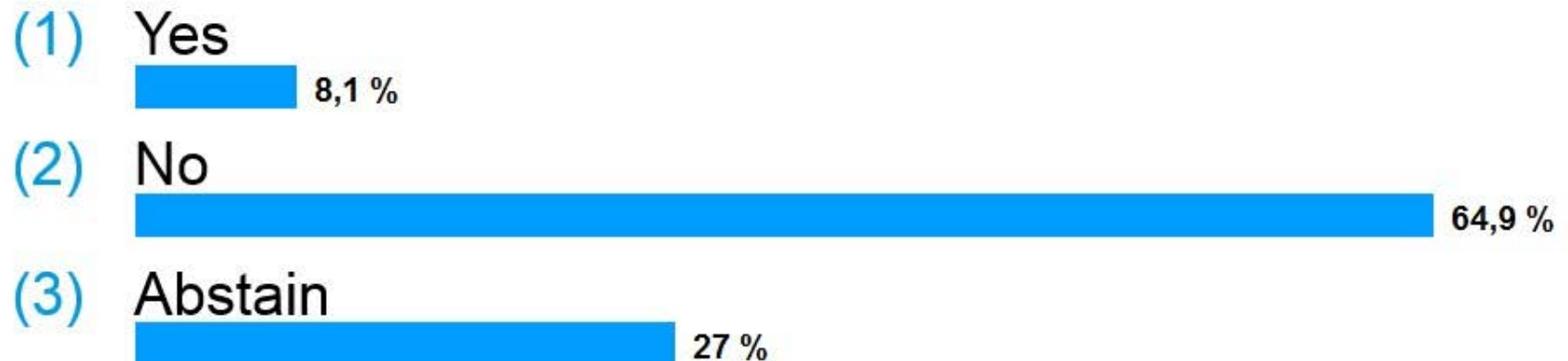


# Multi-Gene Signatures and Chemotherapy: Node-Positive Patients

79. In a patient with ER + /HER2 negative clinically valuable information on **prognosis** and risk helping us to decide to omit chemotherapy may be provided by:

## Breast Cancer Index

Chemotherapy?



## Multi-Gene Signatures and Extended Endocrine Therapy:

80. In a patient with ER + /HER2 negative, clinically valuable information on **prognosis** and risk helping us to decide for an extended endocrine therapy (beyond five years) may be provided by one or more multigene signatures



Escalating and De-escalating

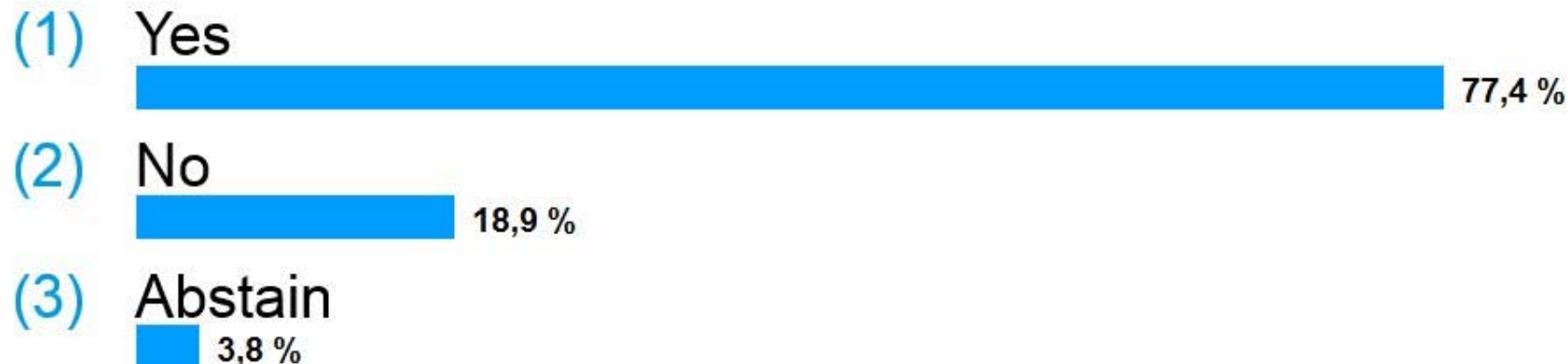
# **WHICH WOMEN SHOULD RECEIVE OVARIAN SUPPRESSION AS PART OF ADJUVANT ENDOCRINE THERAPY?**

# Endocrine Therapy

## Premenopausal: Selection Factors

81. Does each of the following clinico-pathological features by itself argue for inclusion of ovarian function suppression (OFS)?

Age < 35 years

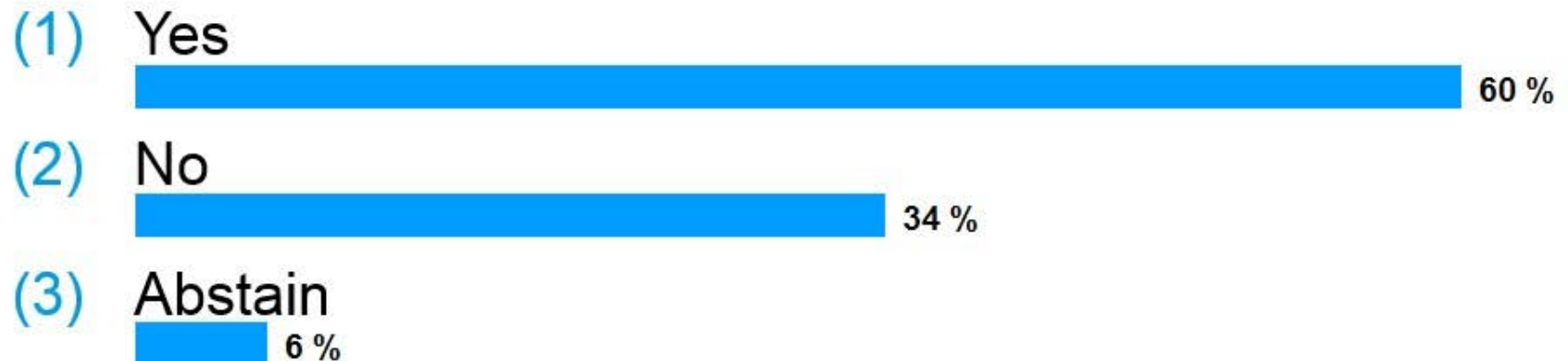


# Endocrine Therapy

## Premenopausal: Selection Factors

82. Does each of the following clinico-pathological features by itself argue for inclusion of ovarian function suppression (OFS)?

Premenopausal oestrogen level after adjuvant chemotherapy





# Endocrine Therapy

## Premenopausal: Selection Factors

85. Does each of the following clinico-pathological features by itself argue for inclusion of ovarian function suppression (OFS)?

Involvement of 4 or more nodes



## Endocrine Therapy Premenopausal Patients: (assessed by Estradiol, FSH and LH): Selection Factors

87. Should some patients receive OFS + AI?



# Endocrine Therapy

## Postmenopausal Patients

93. Is Tamoxifen alone still appropriate for some patients?



# Endocrine Therapy

## Postmenopausal Patients

94. Parameters for inclusion of an AI at some point are:  
All postmenopausal patients



# Endocrine Therapy

## Postmenopausal Patients

95. Parameters for inclusion of an AI at some point are:  
Node-positive



# Endocrine Therapy

## Postmenopausal Patients

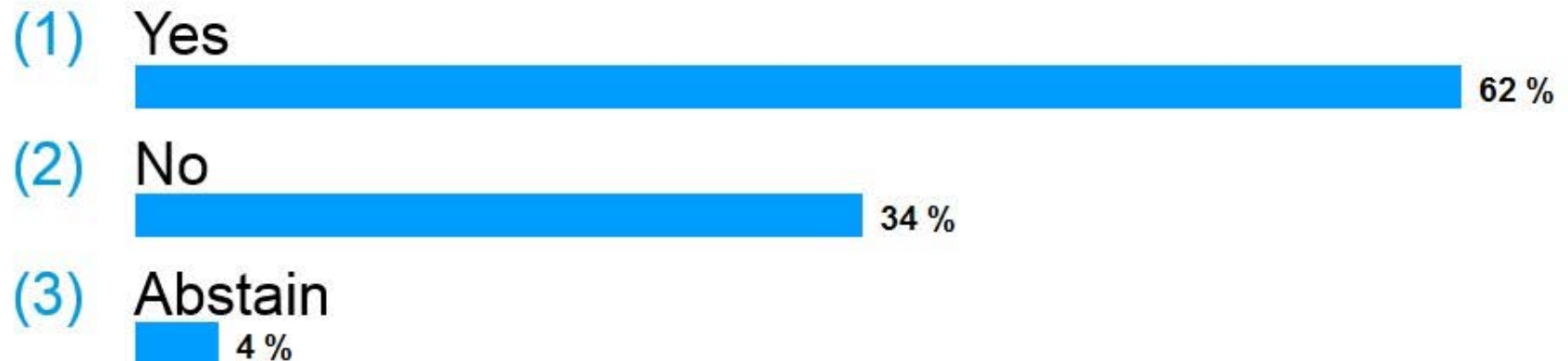
96. Parameters for inclusion of an AI at some point are:  
Grade 3 or high Ki67



# Endocrine Therapy

## Postmenopausal Patients

97. Parameters for inclusion of an AI at some point are:  
HER2 positivity



# Endocrine Therapy

## Postmenopausal Patients

98. If an AI is used, should it be started upfront:  
In any patients?

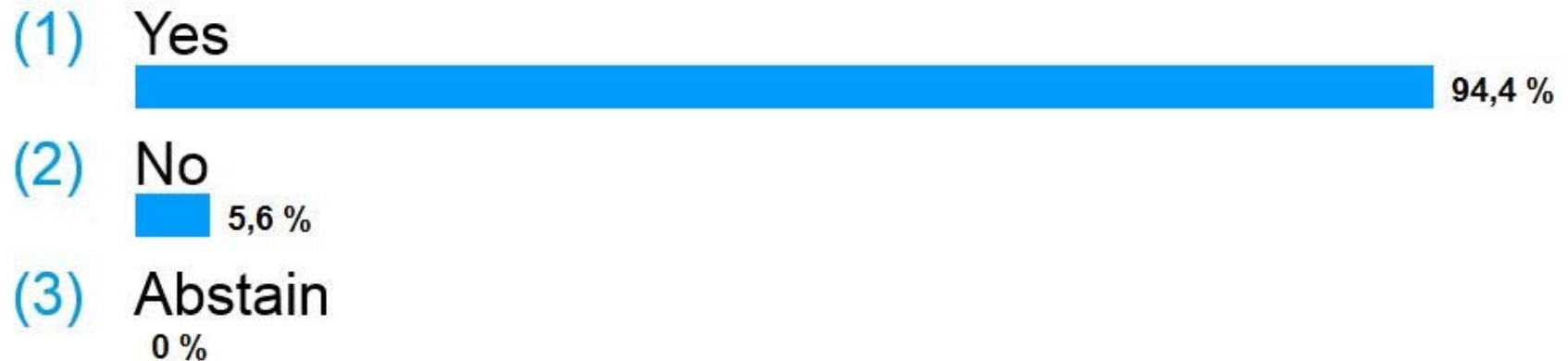




# Endocrine Therapy

## Postmenopausal Patients

99. If an AI is used, should it be started upfront:  
In patients at higher risk?



# Endocrine Therapy

## Postmenopausal Patients

100. If an AI is used, should it be started upfront:  
In lobular cancer (letrozole or other AI)?



# Endocrine Therapy

## Postmenopausal Patients

101. Can upfront AI be switched to TAM after 2 years in all?



Escalating and De-escalating

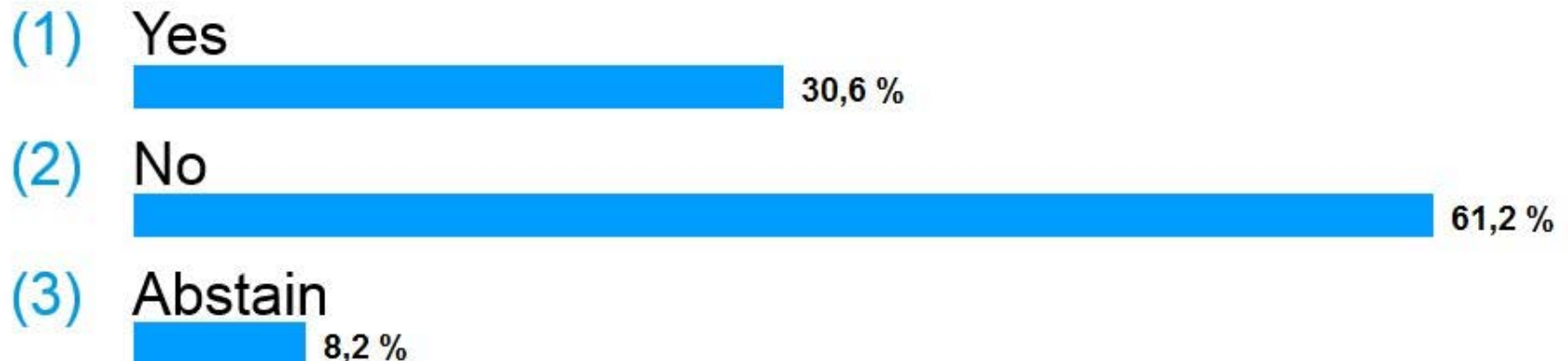
# **WHICH WOMEN SHOULD RECEIVE LONGER DURATION OF ADJUVANT ENDOCRINE THERAPY?**

# Adjuvant Endocrine Therapy Duration (Postmenopausal Patients)

103. Provided an indication exists for therapy beyond the first 5 years:

After 5 years of adjuvant therapy involving **switch from TAM to an AI** (therefore assuming postmenopausal status at the 5 year time point and reasonable tolerance to endocrine therapy), patients at **moderate or high risk of recurrence** should be recommended to receive:

A further 5 years of Tamoxifen



# Adjuvant Endocrine Therapy Duration (Postmenopausal Patients)

104. Provided an indication exists for therapy beyond the first 5 years:

After 5 years of adjuvant therapy involving **switch from TAM to an AI** (therefore assuming postmenopausal status at the 5 year time point and reasonable tolerance to endocrine therapy), patients at **moderate or high risk of recurrence** should be recommended to receive:

Continue AI to a cumulative total of 5 years AI

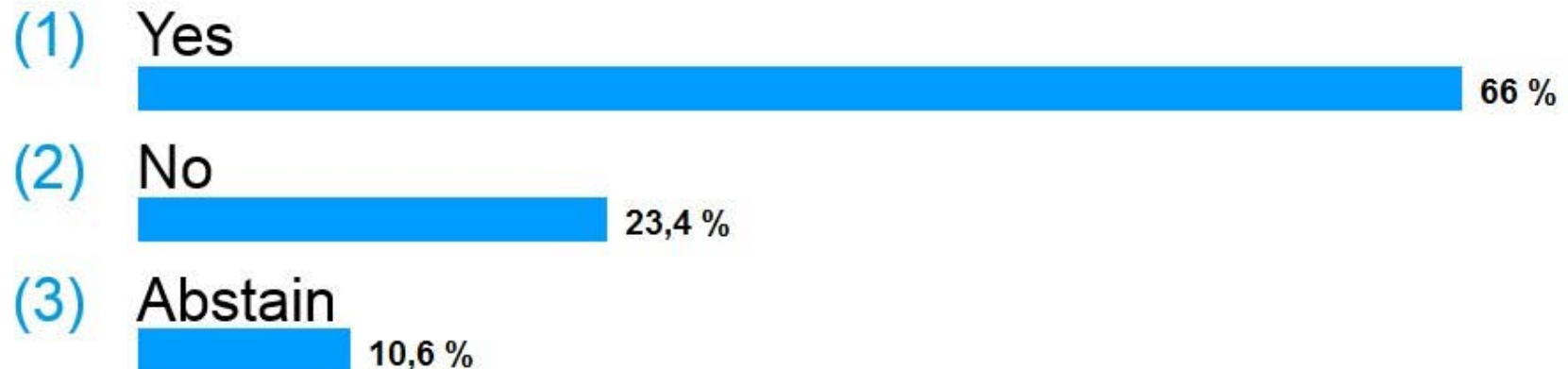


# Adjuvant Endocrine Therapy Duration (Postmenopausal Patients)

105. Provided an indication exists for therapy beyond the first 5 years:

After 5 years of adjuvant therapy involving **switch from TAM to an AI** (therefore assuming postmenopausal status at the 5 year time point and reasonable tolerance to endocrine therapy), patients at **moderate or high risk of recurrence** should be recommended to receive:

A further 5 years AI



# Adjuvant Endocrine Therapy Duration (Postmenopausal Patients)

106. Provided an indication exists for therapy beyond the first 5 years:

After 5 years of adjuvant therapy involving **switch from TAM to an AI** (therefore assuming postmenopausal status at the 5 year time point and reasonable tolerance to endocrine therapy), patients at **moderate or high risk of recurrence** should be recommended to receive:

No further endocrine therapy



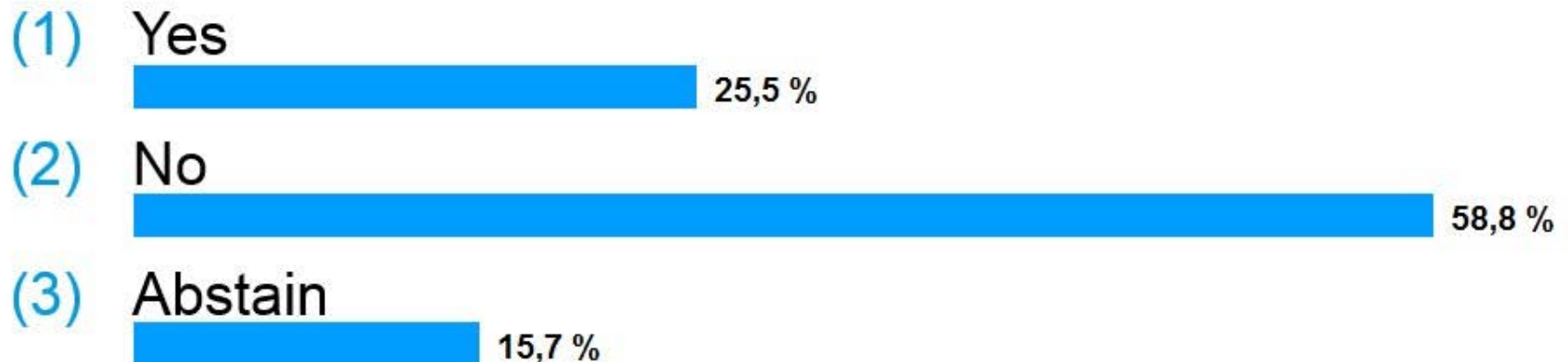


# Adjuvant Endocrine Therapy Duration (Postmenopausal Patients)

107. Provided an indication exists for therapy beyond the first 5 years:

After 5 years of straight AI adjuvant therapy, patients should be recommended to receive:

A further 3 to 5 years of Tamoxifen

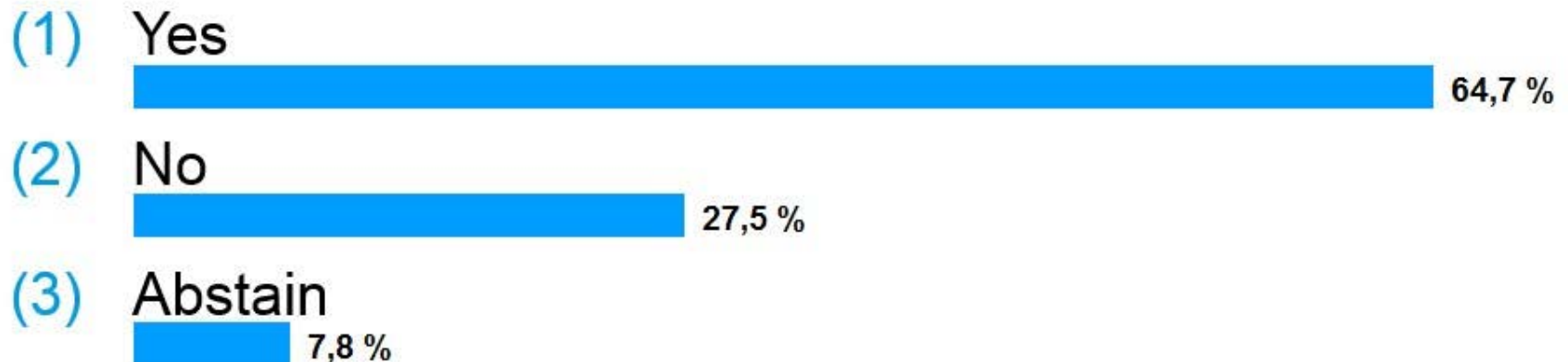


# Adjuvant Endocrine Therapy Duration (Postmenopausal Patients)

108. Provided an indication exists for therapy beyond the first 5 years:

After 5 years of straight AI adjuvant therapy, patients should be recommended to receive:

A further 3 to 5 years of AI

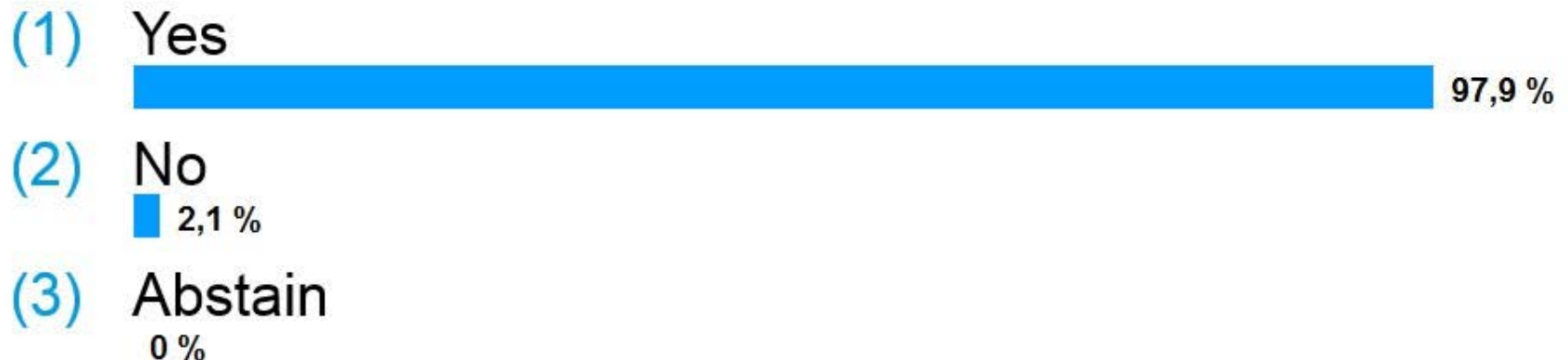


# Adjuvant Endocrine Therapy Duration (Postmenopausal Patients)

109. Provided an indication exists for therapy beyond the first 5 years:

After 5 years of straight AI adjuvant therapy, patients should be recommended to receive:

Duration of AI depend upon tolerance and absolute risk

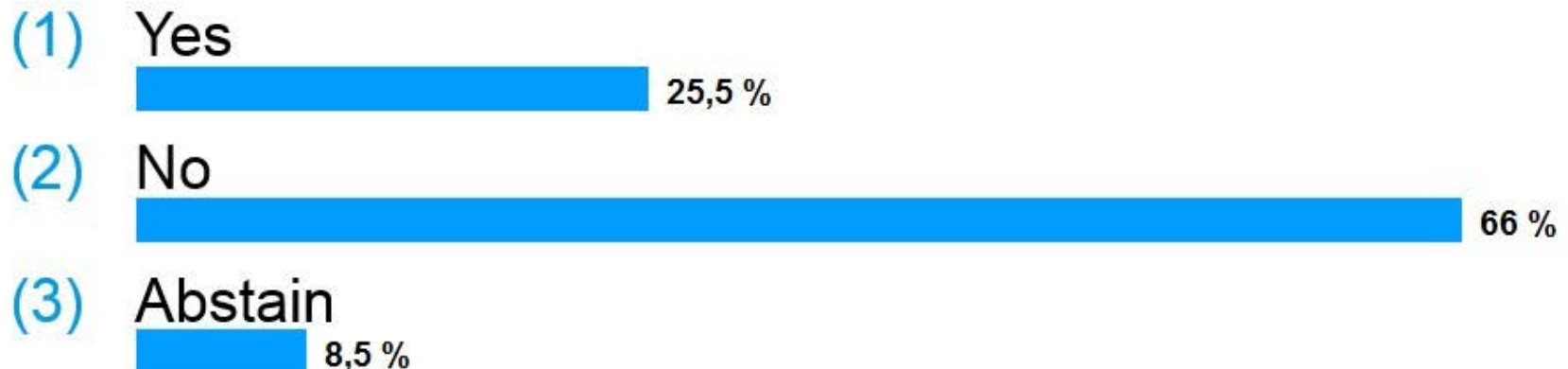


# Adjuvant Endocrine Therapy Duration (Postmenopausal Patients)

110. Provided an indication exists for therapy beyond the first 5 years:

After 5 years of straight AI adjuvant therapy, patients should be recommended to receive:

No further endocrine therapy



# Adjuvant Endocrine Therapy Duration (Premenopausal Patients)

111. For premenopausal women (who remain premenopausal) TAM to 10 years should be recommended to:

Premenopausal patients at high risk at presentation?



# Adjuvant Endocrine Therapy Duration (Premenopausal Patients)

112. For premenopausal women (who remain premenopausal) TAM to 10 years should be recommended to:

Premenopausal patients with any risk at presentation?



Escalating and De-escalating

# WHICH WOMEN SHOULD RECEIVE ADJUVANT CHEMOTHERAPY?

# Adjuvant Chemotherapy

115. Treatment decision about both prognosis and the potential benefits of chemotherapy in N0 disease can be aided by which of the following:

Biology defined by IHC features





# Adjuvant Chemotherapy

116. Treatment decision about both prognosis and the potential benefits of chemotherapy in N0 disease can be aided by which of the following:

Multigene risk predictor



# Adjuvant Chemotherapy

117. If IHC is used, factors which are relative indications for the inclusion of adjuvant cytotoxic chemotherapy include:

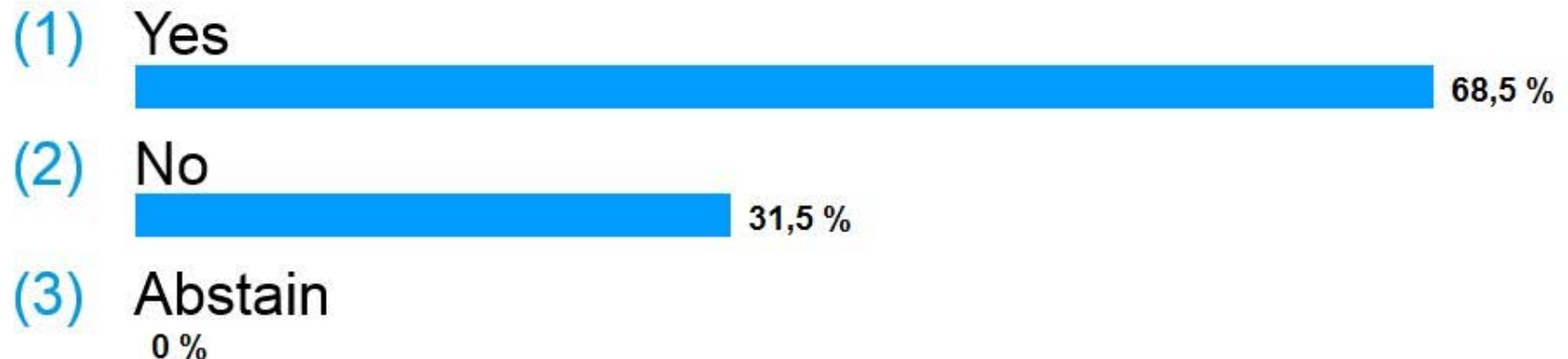
Histological grade 3 tumor



# Adjuvant Chemotherapy

118. If IHC is used, factors which are relative indications for the inclusion of adjuvant cytotoxic chemotherapy include:

Any positive node



# Adjuvant Chemotherapy

120. If IHC is used, factors which are relative indications for the inclusion of adjuvant cytotoxic chemotherapy include:

Ki67 high



# Adjuvant Chemotherapy

121. If IHC is used, factors which are relative indications for the inclusion of adjuvant cytotoxic chemotherapy include:

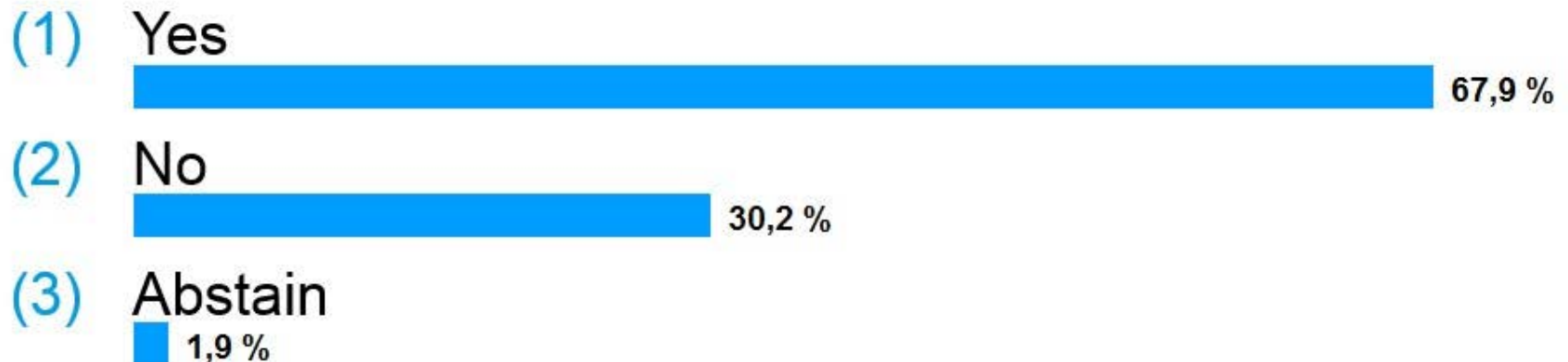
Age < 35



# Adjuvant Chemotherapy

122. If IHC is used, factors which are relative indications for the inclusion of adjuvant cytotoxic chemotherapy include:

Extensive lympho-vascular invasion



# Adjuvant Chemotherapy

123. If IHC is used, factors which are relative indications for the inclusion of adjuvant cytotoxic chemotherapy include:

Low hormone receptor staining

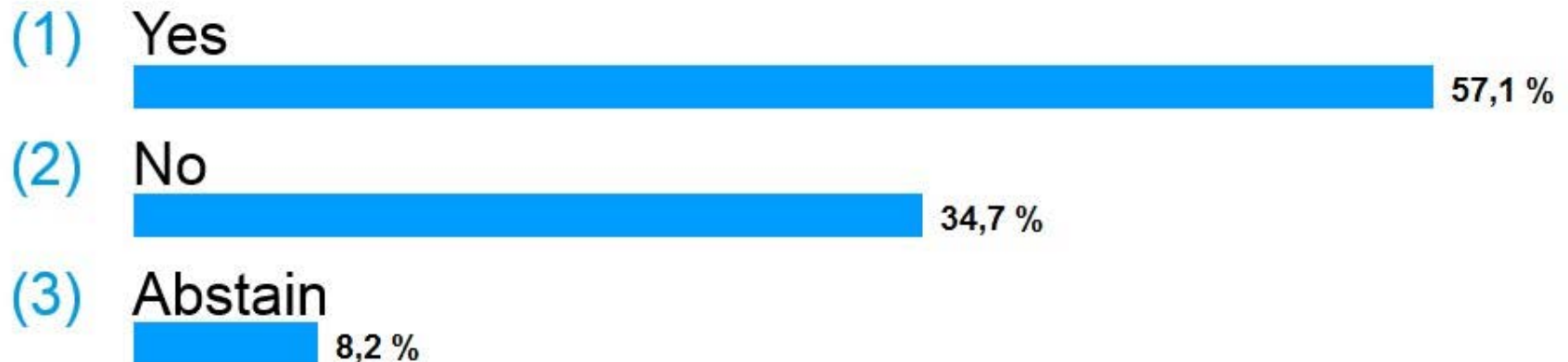


# Adjuvant Chemotherapy

## Luminal B-like Patients

127. In patients with poor prognosis biology by ***IHC*** chemotherapy should be recommended in:

All patients N0 and N+





# Adjuvant Chemotherapy Luminal B-like Patients

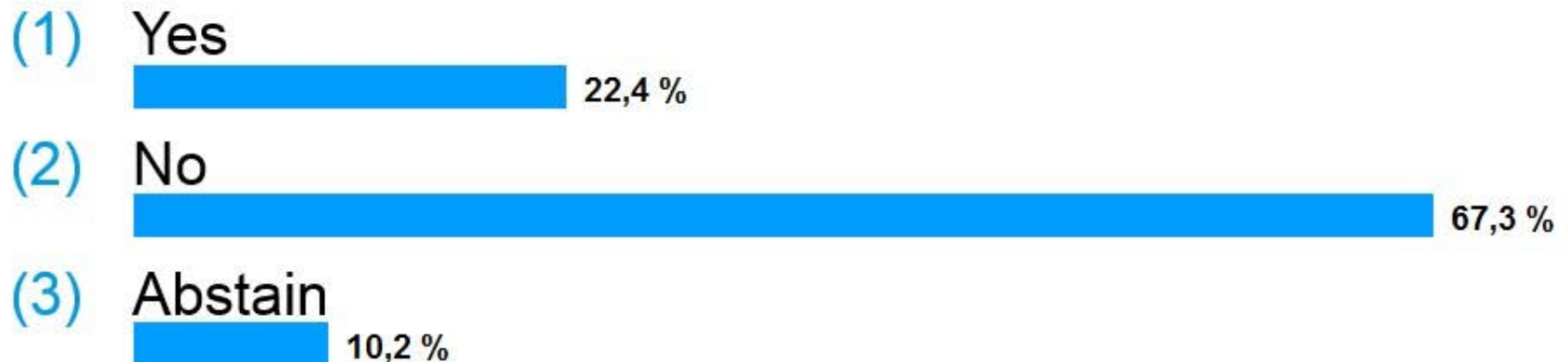
128. Chemotherapy may be safely **omitted** for N+ patients with:

Low risk Oncotype Dx<sup>®</sup> score



# Adjuvant Chemotherapy Luminal B-like Patients

129. Chemotherapy may be safely **omitted** for N+ patients with:  
Intermediate Oncotype Dx<sup>®</sup> score



# Adjuvant Chemotherapy Luminal B-like Patients

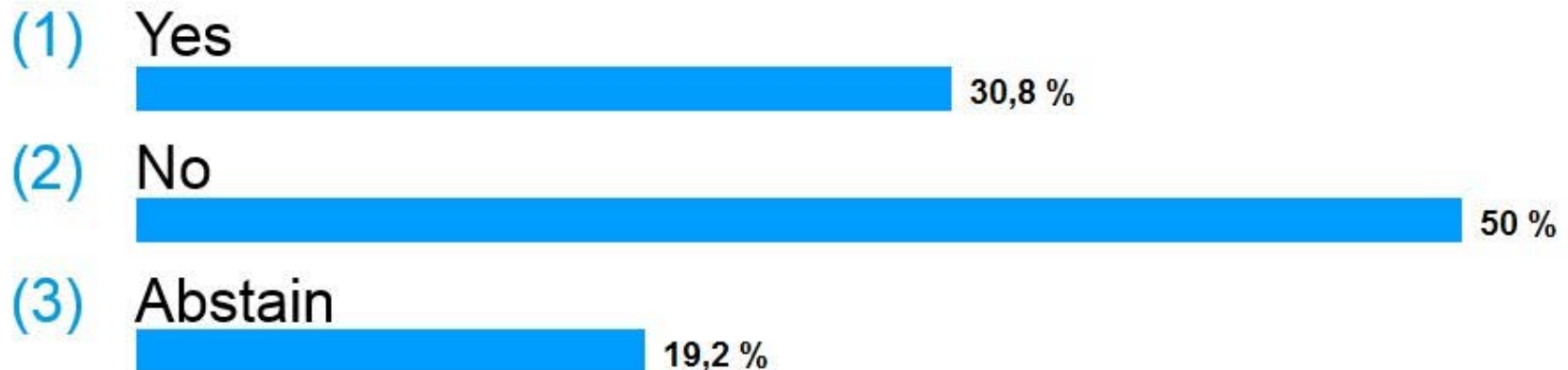
130. Chemotherapy may be safely **omitted** for N+ patients with:  
MammaPrint<sup>®</sup> Low Risk



# Adjuvant Chemotherapy Luminal B-like Patients

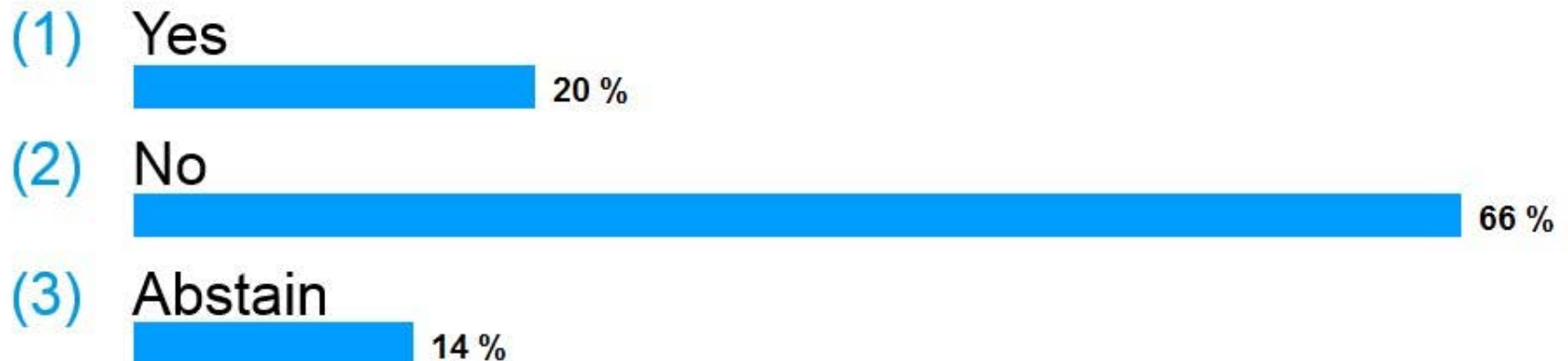
131. Chemotherapy may be safely **omitted** for N+ patients with:

Low PAM50 ROR score



# Adjuvant Chemotherapy Luminal B-like Patients

132. Chemotherapy may be safely **omitted** for N+ patients with:  
EndoPredict<sup>®</sup> Low Risk



# Adjuvant Chemotherapy

Patients with Luminal B-like tumors (HER2 negative)

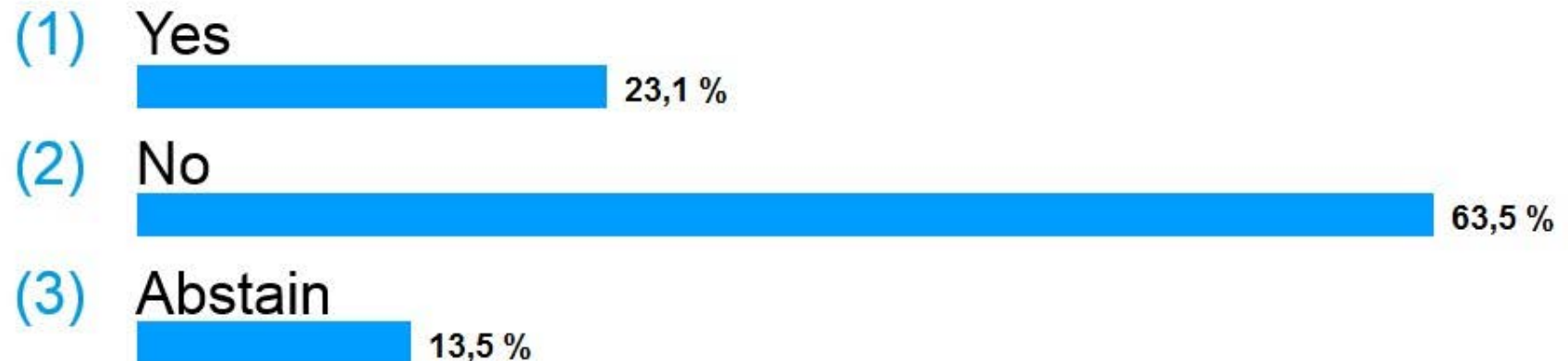
135. If given, should the regimen contain anthracyclines and taxanes?



# Adjuvant Chemotherapy

Patients with Luminal B-like tumors (HER2 negative)

136. Should chemotherapy ever comprise 6 cycles of the same therapy (e.g. 6 courses of EC or AC or TC)?



# Adjuvant Chemotherapy in patients with Ductal Triple-Negative BC

138. In stage I should the regimen for all TNBC phenotype contain anthracyclines and taxanes?





# Adjuvant Chemotherapy in patients with Ductal Triple-Negative BC

139. In stage II-III should the regimen for all TNBC phenotype contain anthracyclines and taxanes?



# Adjuvant Chemotherapy in patients with Ductal Triple-Negative BC

140. Should a platinum based regimen be considered?  
In all patients with TNBC?



# Adjuvant Chemotherapy in patients with Ductal Triple-Negative BC

141. Should a platinum based regimen be considered?  
Only with known germline mutation?



# Adjuvant Chemotherapy in patients with Ductal Triple-Negative BC

142. Can we avoid chemotherapy in pT1a pN0 stage?



# Adjuvant Chemotherapy in patients with Ductal Triple-Negative BC

143. Should dose-dense chemotherapy be a preferred regimen?



# Adjuvant Chemotherapy

## HER2-positive (node-positive disease) patients

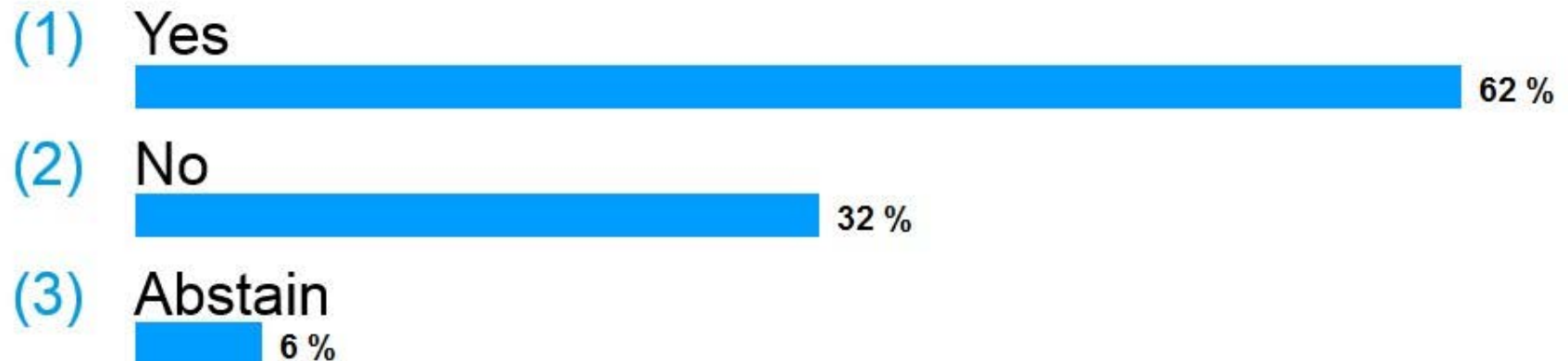
144. Should chemotherapy always be given to patients with N+ disease who require anti-HER2 therapy?



# Adjuvant Chemotherapy

## HER2-positive (node-positive disease) patients

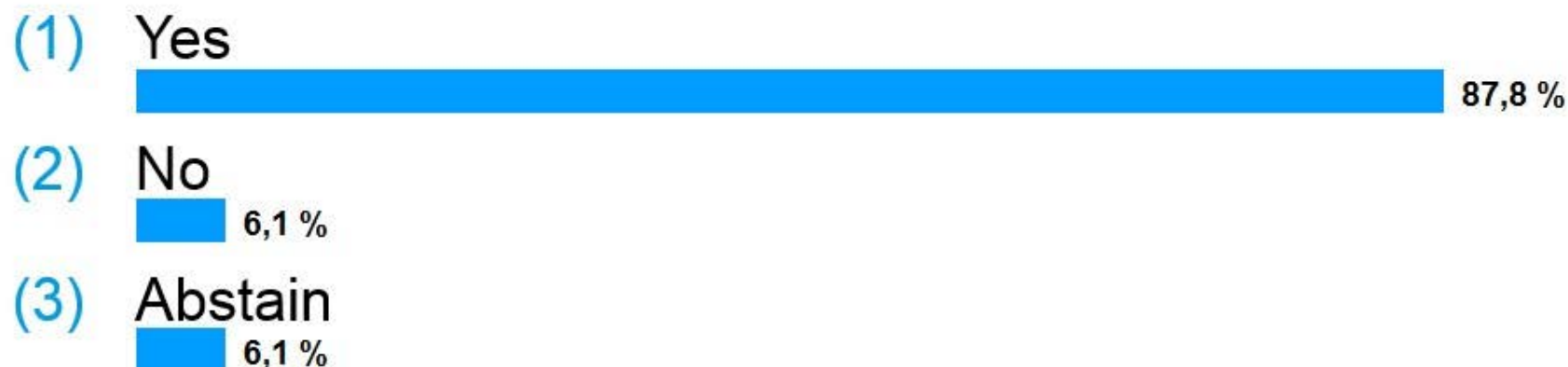
145. Should the chemotherapy regimen for these patients include anthracyclines?



# Adjuvant Chemotherapy

## HER2-positive (node-positive disease) patients

146. Should the chemotherapy regimen for these patients include taxanes?





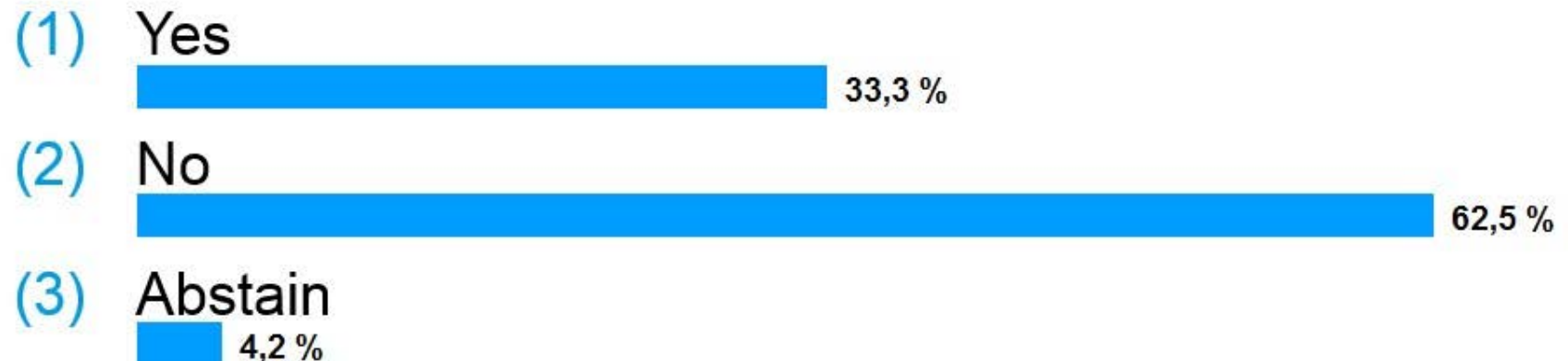
# Adjuvant Chemotherapy

## HER2-positive (node-negative disease) Patients

148. With HER2 positivity determined according to ASCO/CAP guidelines:

Do the large majority of patients with HER2 positive **node-negative** disease require anti-HER2 therapy:

With pT1a disease?



# Adjuvant Chemotherapy

## HER2-positive (node-negative disease) Patients

149. With HER2 positivity determined according to ASCO/CAP guidelines:

Do the large majority of patients with HER2 positive **node-negative** disease require anti-HER2 therapy:

With pT1a disease?



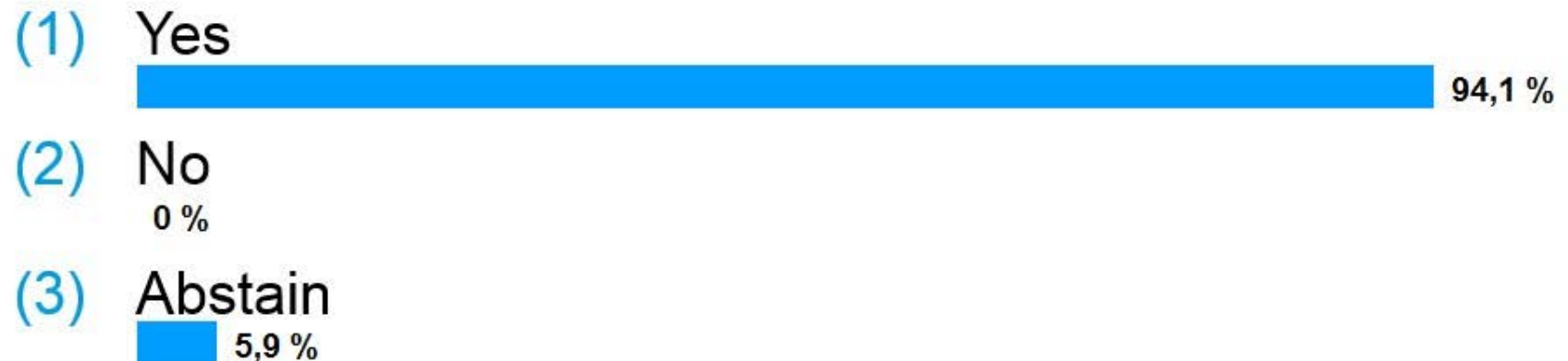
# Adjuvant Chemotherapy

## HER2-positive (node-negative disease) Patients

150. With HER2 positivity determined according to ASCO/CAP guidelines:

Do the large majority of patients with HER2 positive **node-negative** disease require anti-HER2 therapy:

With pT1c disease?



# Adjuvant Chemotherapy

## HER2-positive (node-negative disease) Patients

151. With HER2 positivity determined according to ASCO/CAP guidelines:

If given, is the combination of Paclitaxel and Trastuzumab a reasonable option?



# Adjuvant Chemotherapy

## HER2-positive (node-negative disease) Patients

152. With HER2 positivity determined according to ASCO/CAP guidelines:

If given, is the combination of Paclitaxel and Trastuzumab a reasonable option?

With primary less than 1 cm?



# Adjuvant Chemotherapy

## HER2-positive (node-negative disease) Patients

153. With HER2 positivity determined according to ASCO/CAP guidelines:

If given, is the combination of Paclitaxel and Trastuzumab a reasonable option?

With primary of 1-2 cm?



# Adjuvant Chemotherapy

## HER2-positive (node-negative disease) Patients

154. With HER2 positivity determined according to ASCO/CAP guidelines:

If given, is the combination of Paclitaxel and Trastuzumab a reasonable option?

With primary of 2-3 cm?

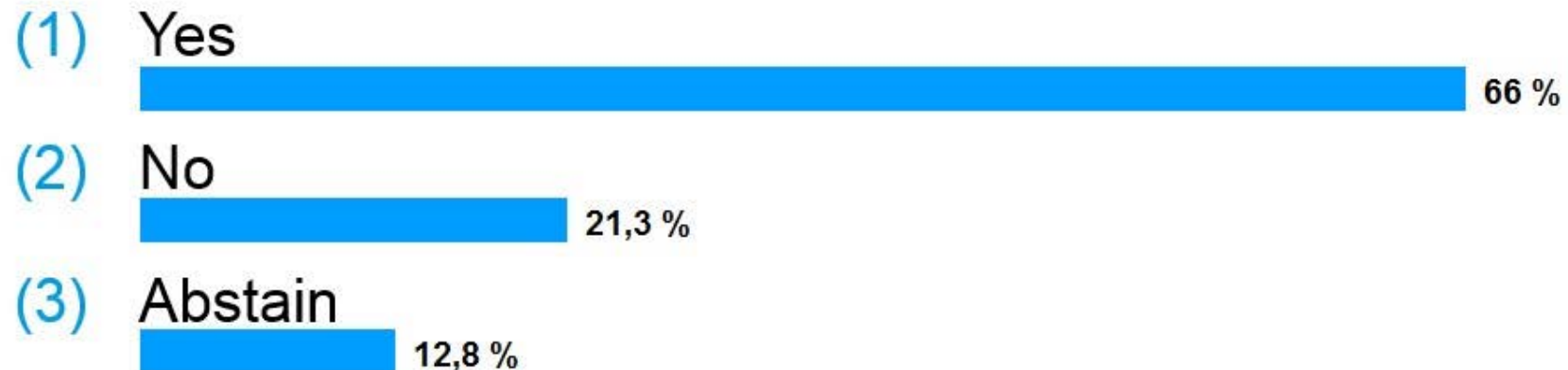


# Adjuvant Chemotherapy

## HER2-positive (node-negative disease) Patients

155. With HER2 positivity determined according to ASCO/CAP guidelines:

If given, is the combination of Docetaxel and cyclophosphamide x 4 and Trastuzumab a reasonable option?





## Adjuvant Anti-HER2 Therapy

159. In a patient who received neo-adjuvant chemotherapy with Trastuzumab and Pertuzumab, adjuvant therapy should include:

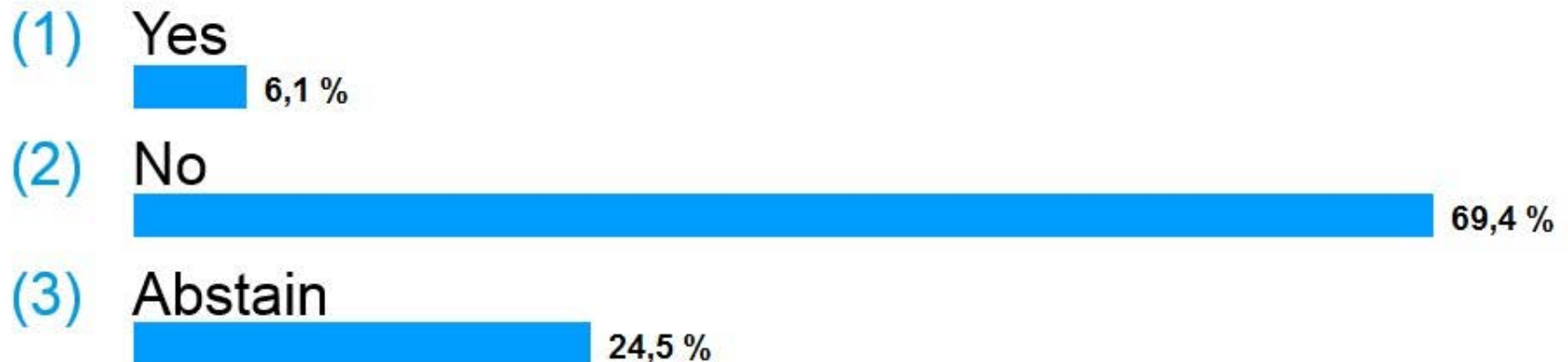
Trastuzumab alone at completion of one year



## Adjuvant Anti-HER2 Therapy

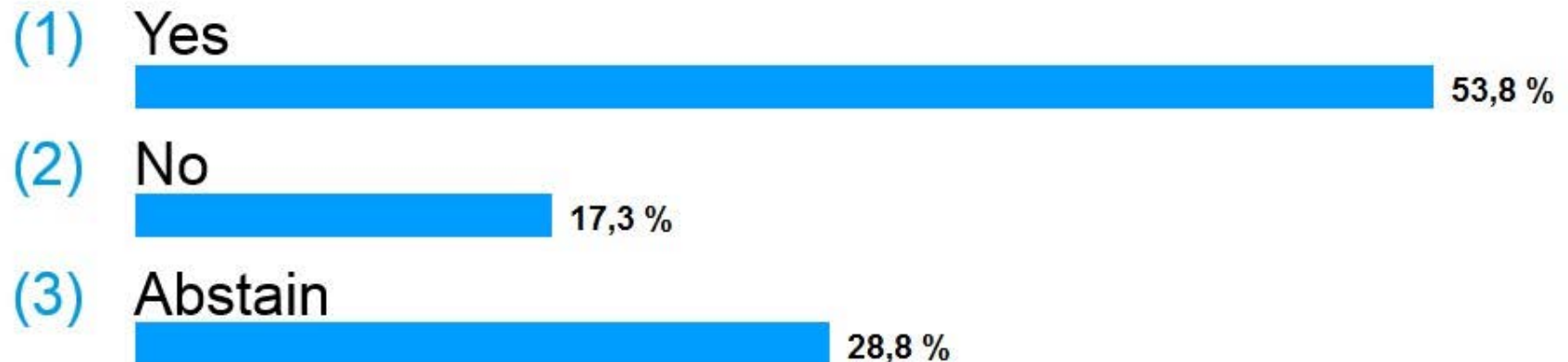
160. In a patient who received neo-adjuvant chemotherapy with Trastuzumab and Pertuzumab, adjuvant therapy should include:

Trastuzumab + Pertuzumab at completion of one year



## Biosimilars in HER2-Positive Disease

161. If approved, are biosimilars of Trastuzumab acceptable in the neo-adjuvant and/or adjuvant treatment of HER2+ disease, based on current evidence?



# Neo-Adjuvant Systemic Therapy

*(possibly followed by additional adjuvant chemo)*

162. In a woman eligible to breast conservative surgery should neo-adjuvant chemotherapy and anti-HER2 therapy be the preferred option for HER2-positive EBC patients in stage II-III?



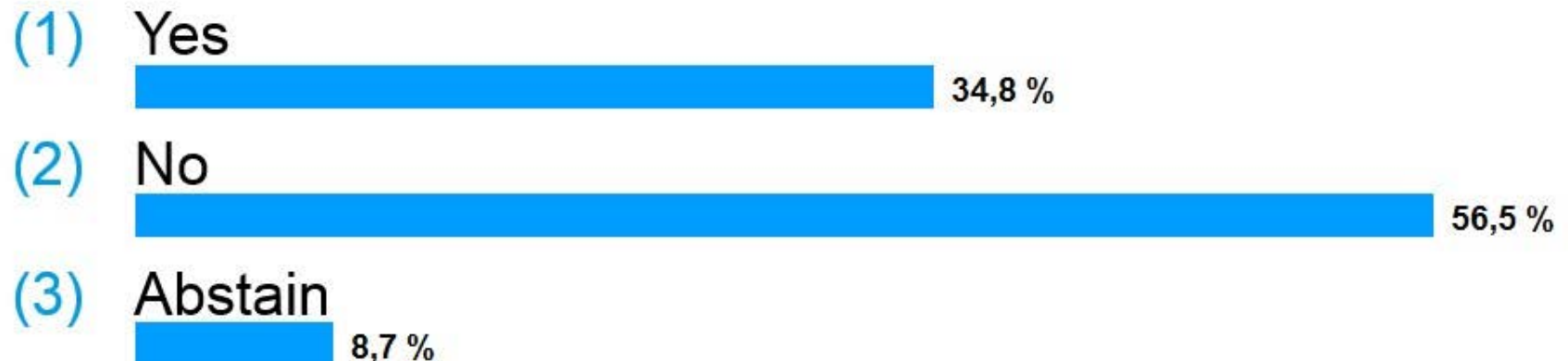
# Neo-Adjuvant Systemic Therapy

*(possibly followed by additional adjuvant chemo)*

## Stage II-III HER2-positive Disease

163. If given, in patients with HER2-positive tumors, acceptable regimen include:

Taxane + Trastuzumab only



# Neo-Adjuvant Systemic Therapy

*(possibly followed by additional adjuvant chemo)*

## Stage II-III HER2-positive Disease

164. If given, in patients with HER2-positive tumors, acceptable regimen include:

Taxane, Trastuzumab and Pertuzumab



# Neo-Adjuvant Systemic Therapy

## Stage II-III Triple-Negative Disease

168. In a woman eligible to breast conservative surgery should neo-adjuvant chemotherapy be a preferred option for TN EBC patients?

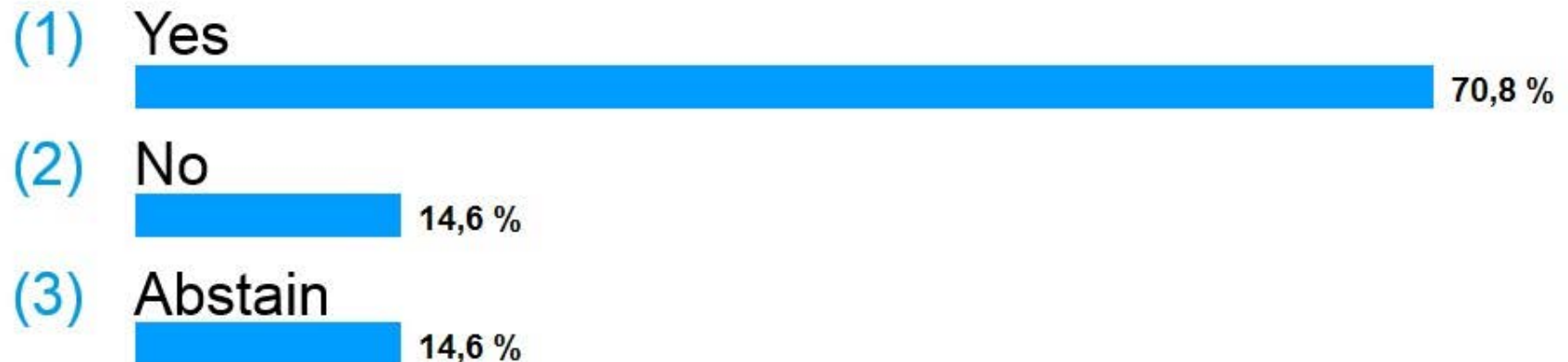


# Neo-Adjuvant Systemic Therapy

## Stage II Triple-Negative Disease

169. If given, in patients with ductal triple-negative tumors (irrespective of BRCA status), the preferred regimen should include:

Platinum or alkylating agents containing regimen





# Neo-Adjuvant Systemic Therapy

## Stage II Triple-Negative Disease

170. If given, in patients with ductal triple-negative tumors (irrespective of BRCA status), the preferred regimen should include:

Anthracycline → taxane non-dose dense

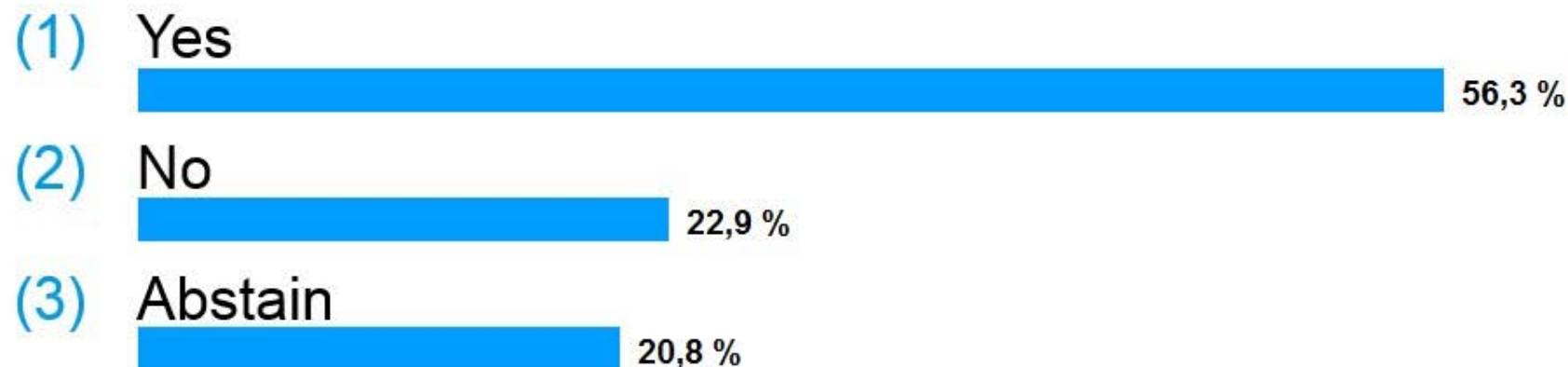


# Neo-Adjuvant Systemic Therapy

## Stage II Triple-Negative Disease

172. If given, in patients with ductal triple-negative tumors (irrespective of BRCA status), the preferred regimen should include:

Nab-Paclitaxel -> EC







Escalating and De-escalating

# **WHICH WOMEN SHOULD RECEIVE ADDITIONAL THERAPY AFTER NEO-ADJUVANT TREATMENT?**

# Additional Adjuvant Chemotherapy in the Post-Neo-Adjuvant Setting

174. In case of clinical response and residual disease of greater than 1 cm and/or a positive node at surgery following neo-adjuvant (anthracycline-, taxane- and alkylator-based) chemotherapy for TNBC, we should propose:

- (1) No further chemotherapy  31,1 %
- (2) Capecitabine  48,9 %
- (3) Platinum  6,7 %
- (4) Platinum if BRCA+ 8,9 %
- (5) Metronomic chemotherapy  4,4 %

# Additional Adjuvant Chemotherapy in the Post-Neo-Adjuvant Setting

175. In case of clinical response and residual disease of greater than 1 cm and/or a positive node at surgery following neo-adjuvant (anthracycline-, taxane- and alkylator-based) chemotherapy for TNBC, we should propose:

A clinical trial when available



# Scalp-Cooling

176. Is a scalp cooling device an option to prevent hair loss during (neo-)adjuvant chemotherapy?



Escalating and De-escalating

# SHOULD WE ROUTINELY ADD BONE-MODIFYING THERAPY AS ADJUVANT TREATMENT?

# Adjuvant Bisphosphonates

177. Is bisphosphonate treatment, such as zoledronic acid q 6 months or oral clodronate, during adjuvant endocrine therapy, indicated to improve DFS irrespective of BMD?

In premenopausal patients receiving LHRH plus TAM or plus AI?





# Adjuvant Bisphosphonates

178. Is bisphosphonate treatment, such as zoledronic acid q 6 months or oral clodronate, during adjuvant endocrine therapy, indicated to improve DFS irrespective of BMD?

In premenopausal patients not receiving LHRH?



# Adjuvant Bisphosphonates

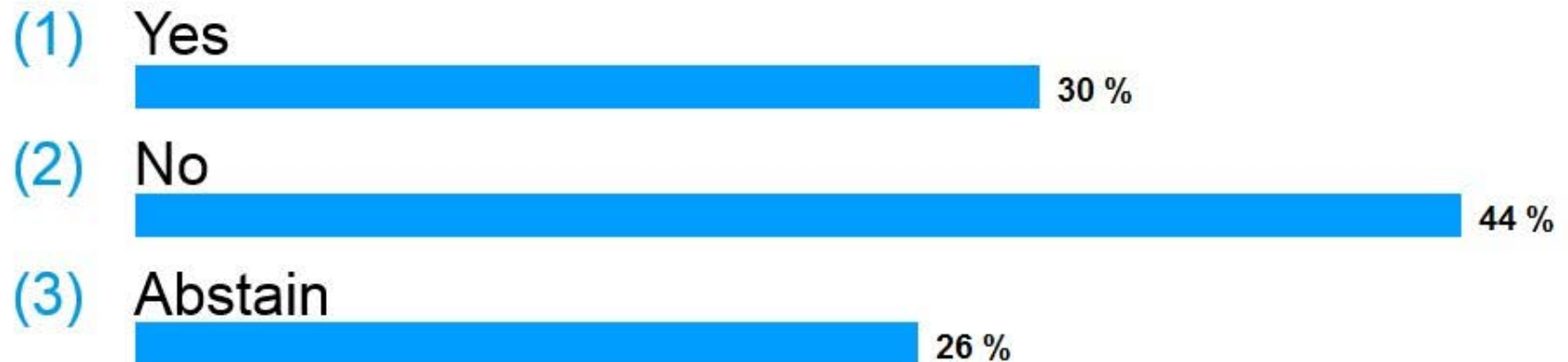
179. Is bisphosphonate treatment, such as zoledronic acid q 6 months or oral clodronate, during adjuvant endocrine therapy, indicated to improve DFS irrespective of BMD?

In postmenopausal patients?



# Adjuvant Bisphosphonates

180. Should adjuvant denosumab (60 mg twice a year) substitute for bisphosphonate?



Escalating and De-escalating

# **SPECIAL POPULATIONS**

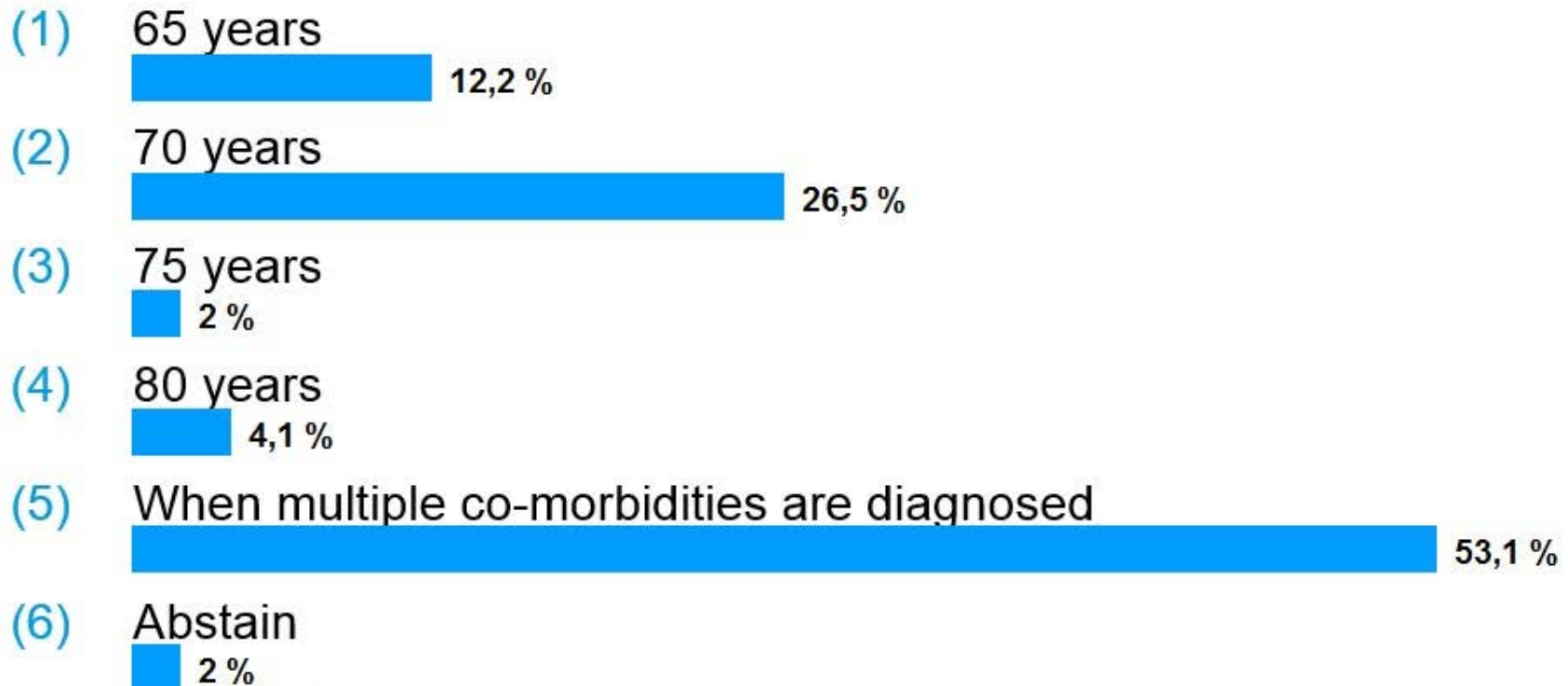
# Age and Adjuvant Chemotherapy

181. In the absence of significant co-morbidity, the maximum age at which a standard adjuvant chemotherapy regimen should be advised is:

- (1) 65 years  
0 %
- (2) 70 years  
2 %
- (3) 75 years  
0 %
- (4) 80 years  
2 %
- (5) There is no absolute age limit. Rather, it depends on the disease, the  
94,1 %
- (6) Abstain  
2 %

## Elderly Patients: Adjuvant Radiation

182. In postmenopausal patients with ER-positive tumors, who have a low-risk genomic score, node-negative, receiving endocrine therapy, radiation after breast conserving surgery may be **omitted** in patients:



# Pregnancy After Breast Cancer

183. For patients planning pregnancy in the 5 years following surgery, is it reasonable to discuss to interrupt endocrine therapy to allow attempted pregnancy:

At any time during endocrine therapy?



## Male Breast Cancer

187. In male patients with ER positive breast cancer, post-operative adjuvant Tamoxifen is currently advised. Adjuvant therapy options beyond Tamoxifen (if TAM is contraindicated in the adjuvant setting) include:

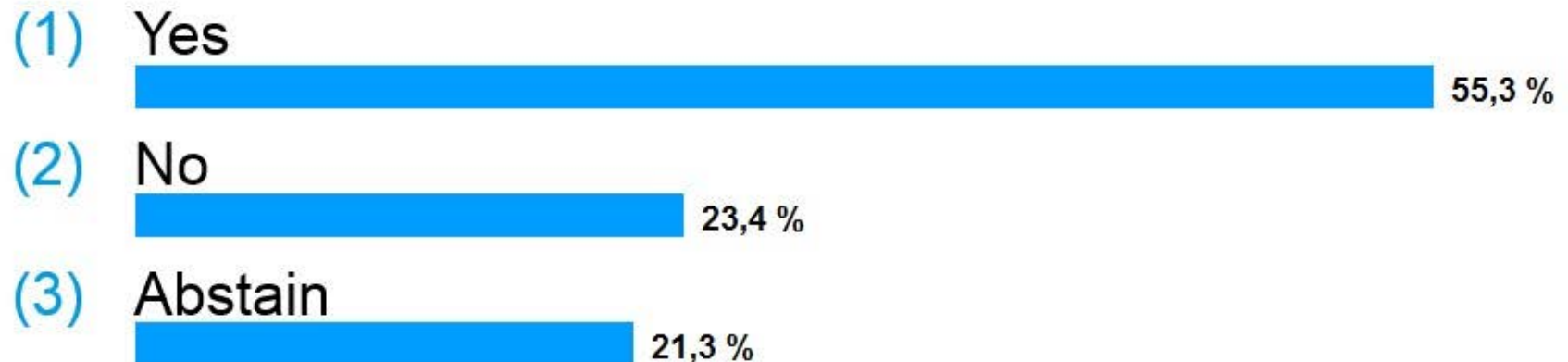
Aromatase inhibitors alone





## Male Breast Cancer

188. In male patients with ER positive breast cancer, post-operative adjuvant Tamoxifen is currently advised. Adjuvant therapy options beyond Tamoxifen (if TAM is contraindicated in the adjuvant setting) include:  
Aromatase inhibitors + LHRH a



Escalating and De-escalating

# SHOULD WE EXPAND THE USE OF GENETIC TESTING IN BREAST CANCER PATIENTS?

## High Risk Mutations

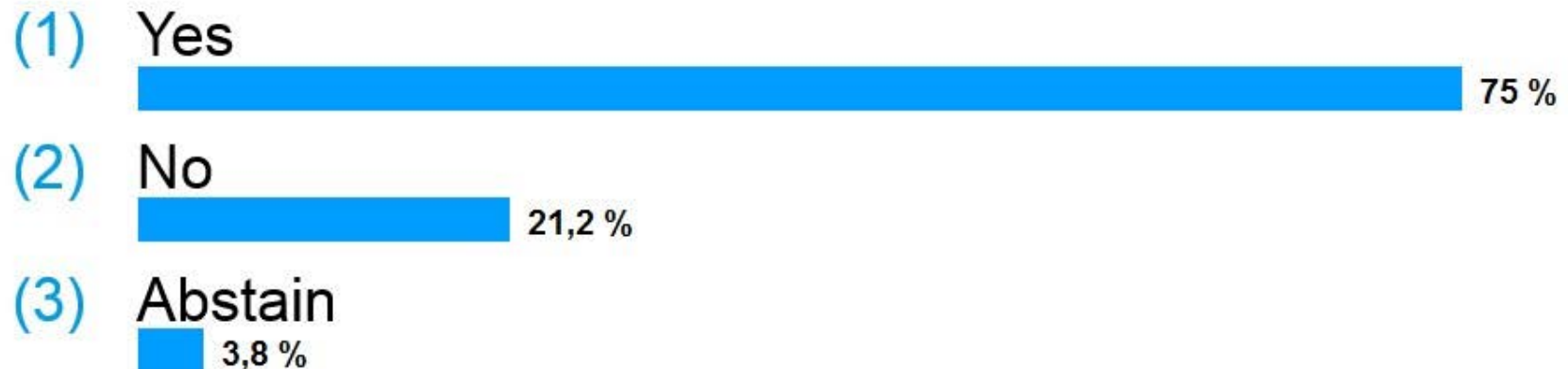
192. Genetic testing for high risk mutations should be considered, after counselling, in:  
Patients with a strong family history



## High Risk Mutations

193. Genetic testing for high risk mutations should be considered, after counselling, in:

Patients under 40 at breast cancer diagnosis



## High Risk Mutations

194. Genetic testing for high risk mutations should be considered, after counselling, in:

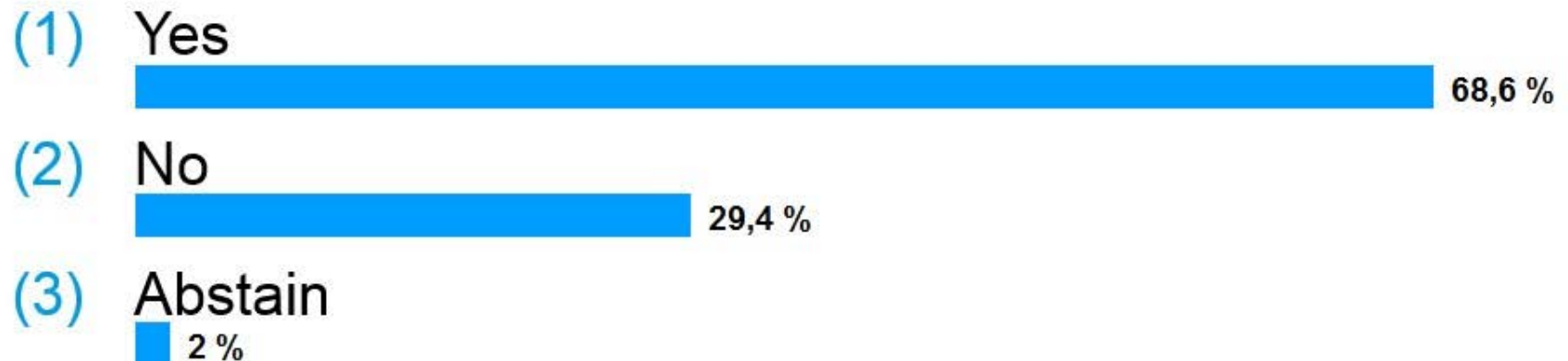
Patients under 50 at breast cancer diagnosis



## High Risk Mutations

195. Genetic testing for high risk mutations should be considered, after counselling, in:

Patients under 60 with TNBC only



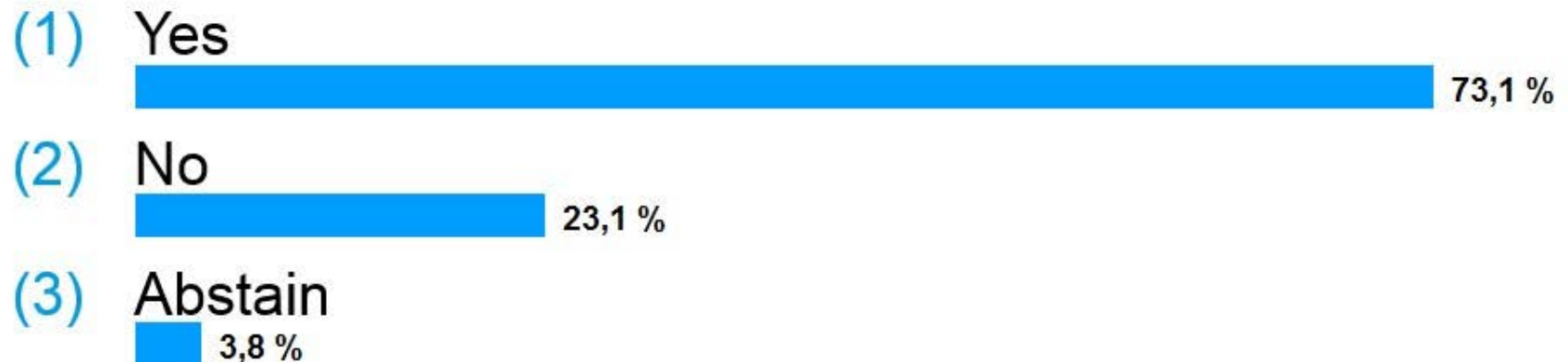
# High Risk Mutations

196. BRCA 1 or 2 mutations may impact treatment decisions on Breast surgery



# High Risk Mutations

197. BRCA 1 or 2 mutations may impact treatment decisions on  
Systemic therapies





# High Risk Mutations

198. BRCA 1 or 2 mutations may impact treatment decisions on

Other prophylactic interventions



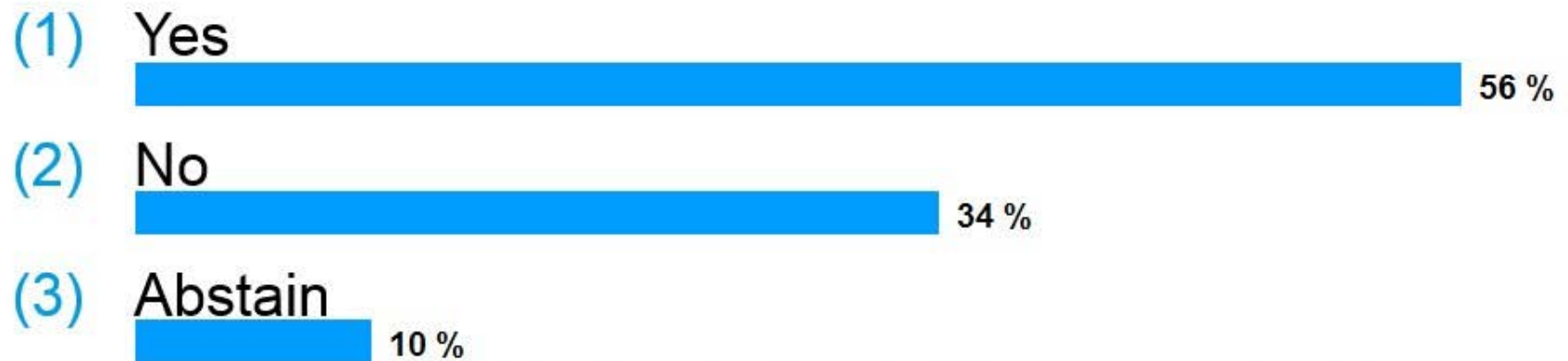
Escalating and De-escalating

**SHOULD BREAST CANCER  
PATIENTS RECEIVE SPECIFIC DIET  
AND LIFESTYLE INTERVENTIONS  
BEYOND 'ORDINARY' ADVICE ON  
MAINTAINING HEALTHY  
LIFESTYLES?**

# Adjuvant Diet and Exercise

199. Independent of any lifestyle recommendations that may be offered for rehabilitation, symptom control and/or general health, would you **ALSO** recommend the following with the goal of reducing risk of recurrence and/or death from breast cancer?

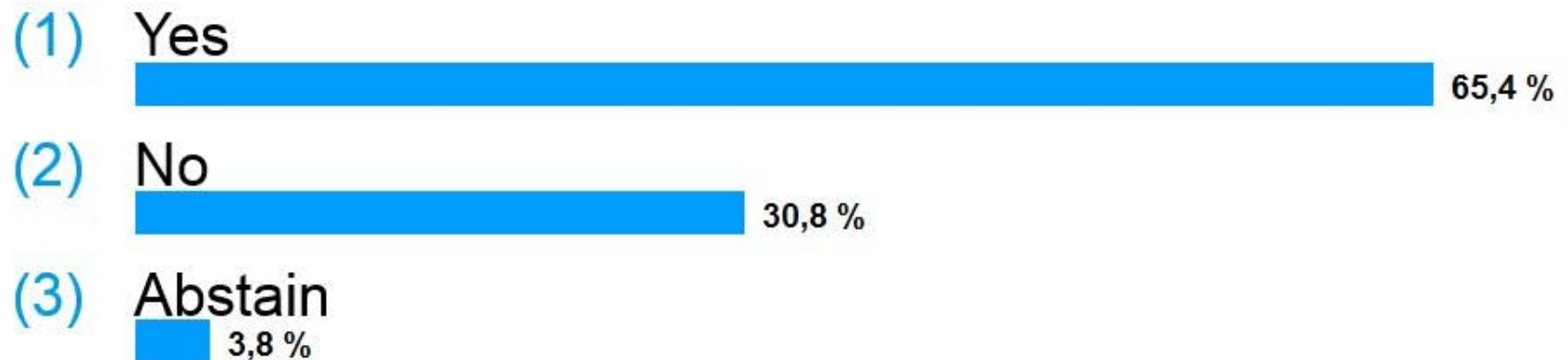
That patients should receive dietary advice in keeping with national guidelines?



# Adjuvant Diet and Exercise

200. Independent of any lifestyle recommendations that may be offered for rehabilitation, symptom control and/or general health, would you **ALSO** recommend the following with the goal of reducing risk of recurrence and/or death from breast cancer?

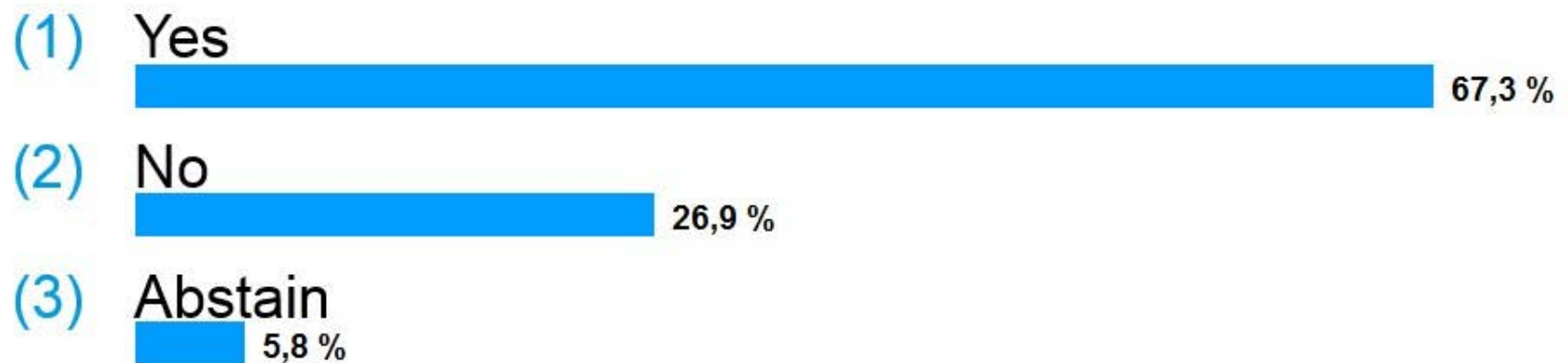
That physical activity (at least 150 minutes per week) be recommended as part of standard care?



# Adjuvant Diet and Exercise

201. Independent of any lifestyle recommendations that may be offered for rehabilitation, symptom control and/or general health, would you **ALSO** recommend the following with the goal of reducing risk of recurrence and/or death from breast cancer?

That weight loss to a normal BMI (20-25) and avoidance of weight gain (providing BMI at least 20) be recommended?



# THANK YOU

Would you please remain in your seats for some minutes to allow the closing message of the conference

# 174 B

1) Yes

2) No

3) Abstain

