

Diagnosis and Treatment of Patients with Primary and Metastatic Breast Cancer

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Guidelines Breast
Version 2009.1.0

Bisphosphonates



Bisphosphonates

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- **Version 2009:**
**Diel / Jackisch / Schaller / Scharl /
Schütz / Solomayer**

Further
Information

References

Bisphosphonates in Breast Cancer

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	Oxford / AGO LoE / GR		
➤ Hypercalcemia	1a	A	++
➤ Reduction skeletal events (complications)	1a	A	++
➤ Treatment beyond progression of bone met's	5	D	++
➤ Prevention of bone metastases			
➤ Primary breast cancer	1b	B	+*
➤ Advanced breast cancer	2b	C	+/-
➤ Tumor therapy-induced osteoporosis			
➤ Prevention	1b	B	++
➤ Therapy	1b	B	++
➤ Prevention and therapy of tumor therapy-induced bone loss	1b	B	+

Further
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Bisphosphonates for Therapy of Bone Metastases

Oxford / AGO
LoE / GR

- | | | | |
|---|-----------|----------|-----------|
| ➤ Clodronate PO 1600 mg daily | 2b | B | ++ |
| ➤ Clodronate IV 1500 mg q3w / q4w | 2b | B | ++ |
| ➤ Pamidronate IV 90 mg q3w / q4w | 2b | B | ++ |
| ➤ Ibandronate IV 6 mg q3w / q4w | 2b | B | ++ |
| ➤ Ibandronate PO 50 mg daily | 2b | B | ++ |
| ➤ Zoledronate IV 4 mg q4w | 2b | B | ++ |
| ➤ Other doses or schedules, e.g. derived from studies of adjuvant therapy or therapy of osteoporosis | 5 | D | -- |

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Adjuvant Bisphosphonate Treatment in Primary Breast Cancer

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LoE / GR

- **Improvement of DFS
in individual studies also for OS** **1b C +**

- **Clodronate PO 1600 mg daily for 2y** **1b B +**

- **Zoledronate IV 4 mg every 6 months for 3y**
 - **Postmenopausal patients** **3b^a C +**
 - **Premenopausal patients*** **2b^a C +**

***In the underlying trials, adjuvant therapy did not correspond to current standards.**

Further
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Side-Effects and Toxicity – Bisphosphonates

Oxford LoE

- **Renal function deterioration due to IV-bisphosphonates mostly mild and reversible** **2b**
- **Osteonecrosis of the jaw (ONJ) in up to 2,5% during long-term i.v.-bisphosphonate therapy (caution: length of exposure)** **3b**
- **Acute phase reaction** **3b**
- **Gastrointestinal side effects** **3b**

**In adjuvant bisphosphonate therapy,
no major side effects were observed.**

Further
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Recommendations for Precautions to Prevent ONJ*

Oxford LoE: 4

GR: C

AGO: +

- **During bisphosphonate treatment, avoid any elective dental procedures, which involve jaw bone manipulations**
- **Optimize dental status before start of bisphosphonate treatment, if feasible**
- **Inform patients about ONJ risk and educate about early symptom reporting**
- **In case of high risk for ONJ, use oral bisphosphonate**

In adjuvant bisphosphonate therapy, no major side effects were observed.

***Osteonecrosis of the jaw**

Further
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References