Table 2: Substances Contraindicated and Synergistic with Hormone-Modifying Medication

<table>
<thead>
<tr>
<th>Synergistic</th>
<th>Notes</th>
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<tbody>
<tr>
<td>Indole-3-carbinole enhances TAM effect; may also increase toxic metabolites (caution: hepatotoxicity). Dim H thus not on TAM effect metabolism. Consider CYP2D6 and CYP 3A4 polymorphism testing to ensure proper drug metabolism. See notes below.</td>
<td></td>
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</tbody>
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Aromatase Inhibitors (AI)

<table>
<thead>
<tr>
<th>Avoid</th>
<th>Synergistic</th>
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<tbody>
<tr>
<td>Inducers of the CYP3A4 drug metabolism pathway may lower plasma concentrations of AIs (see notes) such as St. John’s wort (especially in the elderly) and berberine-rich plants like goldenseal, which may interfere with efficacy of these medications. Caution is recommended when taking with other 3A4 substrates and inhibitors (such as SSRIs, antifungals, antibiotics, opiates, ginkgo, milk thistle, grapefruit juice, gauhterica, rhodiolu, uva ursi). Dietary intake of soy isoflavones combined with TAM (in postmenopausal American women) resulted in 60% reduction in breast cancer recurrence comparing highest with lowest intake; “appears not to interfere with tamoxifen efficacy.”</td>
<td></td>
</tr>
</tbody>
</table>

Vitamin D: Achieving a 40 ng/mL concentration of 25OHD may prevent AI-induced arthralgia. Routine pre-AI vitamin D testing recommended due to risk of bone loss with AIs.

Notes Consider CYP2D6 and CYP 3A4 polymorphism testing to ensure proper drug metabolism and inform selection.

Notes: Tamoxifen-treated patients carrying CYP2D6 variants that impaired formation of 4-hydroxytamoxifen, had more than double the risk of recurrence of SERM: selective estrogen receptor modulator such as tamoxifen (TAM) commonly used in premenopausal survivors of breast cancer, shorter relapse-free periods, and worse event-free survival rates compared with patients with functional CYP2D6. Those with CYP2D6B4 variants are at higher risk of endometrial cancer. Femara only mildly inhibits CYP3A. Aniximex moderately inhibits 3A4. Aromax is metabolized by 3A4 and has the greatest risk of interactions with other 3A4-metabolised drugs.

Notes: Consider CYP2D6 and CYP 3A4 polymorphism testing to ensure proper drug metabolism and inform selection.

Notes