# CNS Tumour, General, Treated with Chemo only
## Pediatric Surveillance & Follow-up Guidelines

<table>
<thead>
<tr>
<th>Months from end of therapy</th>
<th>Date</th>
<th>Location</th>
<th>H&amp;P</th>
<th>MRI of head</th>
<th>CBC</th>
<th>Chem</th>
<th>Urine tests</th>
<th>GFR</th>
<th>LH, FSH, Test or Est</th>
<th>Metab</th>
<th>PFTs</th>
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</tbody>
</table>

**Notes:**
- BMI
- +spinal if metastatic at diagnosis and/or at relapse
- Lytes, Ca, Mg, PO4, Cr, urea, U/A; urine Prot: Cr ratio
- Baseline age 12 y if RT or clinical concerns. Rpt Q1y
- fasting glc, HbA1C, fasting lipids
- If CCNU BCNU
- If cisplatin

**Further Surveillance:**
- Dentistry: Annual
- Semen Analysis: From age 18y in males
- Anti-Mullerian Hormone: From age 16y in females if CED ≥ 6 g/m² or pelvic RT; or earlier if clinical concerns
### Anthracycline Surveillance Guidelines (BC)

<table>
<thead>
<tr>
<th>Anthracycline Dose*</th>
<th>Radiation Dose**</th>
<th>Recommended Frequency of Echo</th>
</tr>
</thead>
<tbody>
<tr>
<td>None</td>
<td>&lt; 15 Gy or none</td>
<td>No Screening</td>
</tr>
<tr>
<td>15 - &lt; 35 Gy</td>
<td>15 Gy</td>
<td>Every 2 years</td>
</tr>
<tr>
<td>&lt; 250 mg/m²</td>
<td>&lt; 15 Gy or none</td>
<td>Every 5 years</td>
</tr>
<tr>
<td>250 mg/m²</td>
<td>Any or none</td>
<td>Every 2 years</td>
</tr>
</tbody>
</table>

*Based on total doses of doxorubicin or the equivalent doses of other anthracyclines

**Based on radiation dose with potential impact to heart (radiation to chest, abdomen, spine [thoracic, whole], total body [TBI])

COG LTFU Guidelines version 5.0 (Oct 2018)

### Anthracycline Equivalent Dose

<table>
<thead>
<tr>
<th>Agent</th>
<th>Correction factor</th>
</tr>
</thead>
<tbody>
<tr>
<td>Doxorubicin</td>
<td>1.0</td>
</tr>
<tr>
<td>Daunorubicin</td>
<td>0.5</td>
</tr>
<tr>
<td>Epirubicin</td>
<td>0.67</td>
</tr>
<tr>
<td>Mitoxantrone</td>
<td>4.0</td>
</tr>
<tr>
<td>Idarubicin</td>
<td>5.0</td>
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</tbody>
</table>

Chow J Clin Oncol 2015;33(5):394-402

### Risk of Prolonged Oligospermia or Azoospernia

<table>
<thead>
<tr>
<th>Agent</th>
<th>Possible Risk</th>
<th>High Risk</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cyclophosphamide</td>
<td>&gt; 4g/m²</td>
<td>&gt; 7.5 g/m²</td>
</tr>
<tr>
<td>Busulphan</td>
<td>&gt; 6g/m²</td>
<td>&gt; 600 mg/m²</td>
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<tr>
<td>Melphalan</td>
<td>&gt; 140 mg/m²</td>
<td>&gt; 140 mg/m²</td>
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<tr>
<td>Ifosfamide</td>
<td>&gt; 42 g/m²</td>
<td>&gt; 60 g/m²</td>
</tr>
<tr>
<td>Procarbazine</td>
<td>&gt; 3 g/m²</td>
<td>&gt; 4 g/m²</td>
</tr>
<tr>
<td>Chlorambucil</td>
<td>&gt; 1.4 g/m²</td>
<td>&lt; 1.4 g/m²</td>
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<tr>
<td>BCNU</td>
<td>&gt; 300 mg/m²</td>
<td>&gt; 1 g/m²</td>
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<tr>
<td>CCNU</td>
<td>&gt; 300 mg/m²</td>
<td>&gt; 1 g/m²</td>
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<tr>
<td>Cisplatin</td>
<td>&gt; 300 mg/m²</td>
<td>&gt; 300 mg/m²</td>
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<tr>
<td>Dactinomycin</td>
<td>&gt; 12.2 mg/m²</td>
<td>&gt; 12.2 mg/m²</td>
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<tr>
<td>Ovarian RT dose*</td>
<td>&gt; 100 cGy</td>
<td>&gt; 100 cGy</td>
</tr>
<tr>
<td>Testicular RT dose</td>
<td>&gt; 200 cGy</td>
<td>&gt; 1200 cGy</td>
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</tbody>
</table>

*Lower doses are still possible risk

3. Wyns Human Reprod Update 2010;16(3):312-328

### Risk of Premature Ovarian Insufficiency or Infertility

<table>
<thead>
<tr>
<th>Agent</th>
<th>Possible Risk</th>
<th>High Risk</th>
<th>Ref</th>
</tr>
</thead>
<tbody>
<tr>
<td>CED</td>
<td>&gt; 4 g/m²</td>
<td>&gt; 8 g/m²</td>
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<td>Procarbazine</td>
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<td>Cisplatin</td>
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<tr>
<td>Ovarian RT dose*</td>
<td>&gt; 100 cGy</td>
<td>&gt; 100 cGy</td>
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</tbody>
</table>

*Age dependent (see nomogram)

4. Van Den Berg Hum Reprod 2018; 33(8):1474-1488
6. Imai Molec Clin Oncol 2017;6:807-810

### Cyclophosphamide Equivalent Dose (CED)

<table>
<thead>
<tr>
<th>Agent</th>
<th>Correction factor</th>
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<td>Ifosfamide</td>
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<tr>
<td>Procarbazine</td>
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<td>Chlorambucil</td>
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<td>Busulphan</td>
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Jan 2020 v4