## 2.0 Synopsis

<table>
<thead>
<tr>
<th>Abbott Laboratories</th>
<th>Individual Study Table Referring to Part of Dossier:</th>
<th>(For National Authority Use Only)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Name of Study Drug:</td>
<td>Volume:</td>
<td></td>
</tr>
<tr>
<td>Zemplar®</td>
<td>Page:</td>
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<tr>
<td>Name of Active Ingredient:</td>
<td>Page:</td>
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<tr>
<td>Paricalcitol.</td>
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**Title of Study:** Efficacy and Safety of Paricalcitol on the Treatment of Moderate to Severe Secondary Hyperparathyroidism in Calcitriol Resistant Dialysis Subjects

This study report is being written as a synoptic CSR because the study was stopped very early due to administrative reasons (very low inclusion rate), with less than one third of planned patients included in the trial.

**Coordinator Investigator:** Multicenter study (Investigator Information on file at Abbott Laboratórios do Brasil Ltda). Coordinator investigator is not applicable in this study.

**Study Sites:** Two sites in Brazil

**Publications:** None

**Studied Period (Years):** 7 months and 12 days
First Subject First Visit: 22/Oct/2008
Last Subject Last Visit: 03 Jun 2009

**Phase of Development:** 4

**Objectives:**

**Primary objective:** to evaluate the efficacy and safety of paricalcitol in moderate to severe SHPT subjects under hemodialysis who are calcitriol-resistant.

**Secondary objectives:** to evaluate the effects of paricalcitol on bone remodeling through bone markers measurement after one year of paricalcitol treatment and to observe the incidence of hypercalcemia and/or hyperphosphatemia during treatment with paricalcitol.
**Methodology:** This was a multi-center, prospective, open label, one arm, phase 4 study designed to demonstrate paricalcitol efficacy and safety in the treatment of moderate to severe SHPT in calcitriol resistant dialysis subjects.

Following the screening period, the subjects begun an 8 weeks controlled IV calcitriol therapy period, with initial doses determined according to K/DOQI guideline. Subjects who decreased PTH levels were discontinued from the study. Those who failed to reduce this parameter and/or experienced an episode of hypercalcemia and/or hyperphosphatemia initiated paricalcitol titration period. The dose was titrated every 2 weeks until PTH decrease at least 20% from the last visit before paricalcitol titration period or up to 4 months. If PTH reduction occurred before 4 months in the paricalcitol titration period, the subject was selected to start paricalcitol therapy period, which would last one year. Subjects who failed to respond at the end of paricalcitol titration period were discontinued from the study.

**Number of Subjects (Planned and Analyzed):**
100 subjects were planned to be enrolled so that 50 subjects could be evaluated for the primary variable. 28 subjects were screened (ICF signed); 13 enrolled, 3 entered paricalcitol treatment phase; 0 (zero) reached 3 months of treatment. Therefore no patients were analyzed.

**Diagnosis and Main Criteria for Inclusion:** moderate to severe secondary hyperparathyroidism
1. Male and female subjects > 18 years of age, with CKD stage V;
2. Subjects with diagnosis of calcitriol resistance defined as: episodes of hypercalcemia and/or hyperphosphatemia (defined as an episode of calcium or phosphorus above upper limit of normal or documented by medical history stating that the treatment with calcitriol was discontinued due to hypercalcemia and/or hyperphosphatemia) that precludes treatment continuation and/or persistent PTH above 600pg/mL during calcitriol therapy;
3. PTH value at screening visit between 600 pg/mL and 2000 pg/mL;
4. Stable clinical conditions;
5. Voluntarily consented to participate in the study, by signing an informed consent form.

**Test Product, Dose/Strength/Concentration, Mode of Administration and Lot Number:**
Calcitriol (Calcijex® – 1mcg/mL) – Administered IV, thrice a week, at the end of the dialysis session.
Paricalcitol (Zemplar® - 5 mcg/mL) - Administered IV, thrice a week, at the end of the dialysis session.

**Duration of Treatment:**

<table>
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<tr>
<th>Controlled IV Calcitriol Therapy</th>
<th>Paricalcitol Titration Period</th>
<th>Paricalcitol Therapy Period</th>
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<tbody>
<tr>
<td>8 weeks</td>
<td>Up to 4 months</td>
<td>1 year</td>
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**Reference Therapy, Dose/Strength/Concentration and Mode of Administration and Lot Number:**
No Reference therapy
Criteria for Evaluation

Efficacy:
The primary efficacy variable is the proportion of subjects who experience at least a 50% reduction on PTH values on visit 15 (3 months after start of paricalcitol therapy period), relative to visit 4 values. For those subjects who, by protocol, do not perform visit 4, visit 5 values would be used instead. Secondary variables include improvement on bone remodeling markers, changes in erythropoietin dosage and phosphate binder utilization.

Safety:
Safety was primarily assessed by liver function tests and serum calcium and phosphorus measurements. Adverse events occurrence will be considered secondary safety variable.

Statistical Methods

Efficacy:
Analysis of efficacy variables would be made on ITT and PP populations. Analysis of efficacy variables to PP population would be performed only if more than 10% of subjects of ITT population were excluded.

Safety:
Safety variables would be evaluated on ITTs population (all subjects who were included in the study and took at least one dose of study medication and have at least one safety assessment after inclusion in the study).

Summary/Conclusions

No analysis was performed in this study. By the date the study was stopped, there were only 3 patients on paricalcitol treatment phase, and none of them reached the time point for primary analysis.

Efficacy Results:
No efficacy analysis was carried out.

Safety Results:
No statistical analysis was performed. There were only 13 adverse events reported (12 mild, 1 moderate) by 3 subjects only. None of the events were serious. None of the patients were using paricalcitol.

Conclusions:
No conclusion could be obtained from this stopped study.