

With respect of thyroid hormone formulations aside the levothyroxine and leothyronin, dessicated thyroid extract is another opportunity. This is non-FDA approved simply because thyroid extracts have been around since 1851. So technically they have been grandfathered by the FDA, and did not go through the FDA approval process

Dessicated thyroid extracts derived from porcine thyroid, and then is processed. And the extracts which are highly enriched in thyroid hormone are administered. The formulations now are blended so that the content of thyroid hormone is stable. And again the ratio T4 to T3 it's roughly 4 to 1. Which is skewed toward the T3 concentration as compared to what is present in the circulating levels. Insecurely in circulation in your once.

The general equivalency is a green, which is 60 milligrams roughly equates 100 micrograms of levothyroxine. It depends on the various formulations. And it depends a bit on the brands. So, it's very important to be mindful that there can be differential response from patients to patients. And, it's also important maintaining the normalization of thyroid hormone levels on patients that are taking dessicated thyroid extracts

So personally I don't feel that by the fact that patients are taking thyroid extracts, their thyroid levels should be allowed to be abnormal. We need to recognize that administration of thyroid extracts results in a peak of predictable peak in T3 levels. So what I tend to suggest is measuring the thyroid hormone levels, in the morning before the administration of the dessicated thyroid extracts, or asking the patients not to take their tablets before the measurement of the thyroid hormone.

And again the therapeutic goal is improvement of symptoms, and normalization of the thyroid hormone. let me repeat, thyroid hormone levels should be within normal range. It is very common not to observe a relative decrease in free T4 level, and this is normal again because of the relatively lower concentration of T4 compared to T3. But we always should aim to maintaining the T3, T4 and TSH within normal range.