**First model : Follicle-Based Trigger Model (FBTM) – Scoring Table**

|  |  |  |
| --- | --- | --- |
| **Category** | **Criteria** | **Points** |
| **Follicles ≥ 18 mm** | 2–3 follicles | 10 |
|  | 4–5 follicles | 15 |
|  | ≥ 6 follicles | 20 |
| **Lead Follicle Size** | ≥ 22 mm | 10 |
|  | 20–21 mm | 5 |
|  | < 20 mm | 0 |
| **Days of Stimulation** | 8–10 days | 10 |
|  | 11–12 days | 5 |
|  | ≥ 13 days | 0 |
| **Estradiol Level (pg/mL)** | ≥ 1,500 | 10 |
|  | 1,000–1,499 | 5 |
|  | < 1,000 | 0 |
| **Progesterone Level (ng/mL)** | < 1.5 | 10 |
|  | 1.5–2.9 | 5 |
|  | ≥ 3 | 0 |
| **Patient Response Category** | Low responder | 5 |
|  | Normal responder | 10 |
|  | High responder | 15 |

**Trigger Decision Guidelines (maximum score 70 points)**

|  |  |
| --- | --- |
| **Total Score** | **Recommended Action** |
| ≥ 55 points | Trigger immediately |
| 45–54 points | Trigger in 12–24 hours |
| < 45 points | Delay trigger and re-evaluate in 24h |

**Second model: Follicle-Based Trigger Model (FBTM) – Scoring Table**

|  |  |  |
| --- | --- | --- |
| **Category** | **Criteria** | **Points** |
| **Follicles ≥ 18 mm** | 2–3 follicles | 10 |
|  | 4–5 follicles | 15 |
|  | ≥ 6 follicles | 20 |
| **Lead Follicle Size** | ≥ 22 mm | 10 |
|  | 20–21 mm | 5 |
|  | < 20 mm | 0 |
| **Days of Stimulation** | 8–10 days | 10 |
|  | 11–12 days | 5 |
|  | ≥ 13 days | 0 |
| **Estradiol Level (pg/mL)** | ≥ 1,500 | 10 |
|  | 1,000–1,499 | 5 |
|  | < 1,000 | 0 |
| **Progesterone Level (ng/mL)** | < 1.5 | 10 |
|  | 1.5–2.9 | 5 |
|  | ≥ 3 | 0 |
| **AMH (ng/mL)** | ≥ 3 (High Responder) | 15 |
|  | 1.5–2.9 (Normal Responder) | 10 |
|  | < 1.5 (Low Responder) | 5 |
| **AFC (Antral Follicle Count)** | ≥ 15 (High Responder) | 15 |
|  | 8–14 (Normal Responder) | 10 |
|  | < 8 (Low Responder) | 5 |

**Trigger Decision Guidelines (maximum score 90 points)**

|  |  |
| --- | --- |
| **Total Score** | **Recommended Action** |
| ≥ 65 points | Trigger immediately |
| 55–64 points | Trigger in 12–24 hours |
| < 55 points | Delay trigger and re-evaluate in 24h |

**Third model: Trigger Day Predictive Score (TDPS)**

|  |  |  |  |
| --- | --- | --- | --- |
| **Category** | **Parameter** | **Criteria** | **Points** |
| **Patient Characteristics (20 pts)** | Age | ≤ 35 years | 8 |
|  |  | 36–40 years | 5 |
|  |  | 41–45 years | 2 |
|  |  | ≥ 46 years | 0 |
|  | AMH | ≥ 5 ng/mL | 8 |
|  |  | 2.5–4.9 ng/mL | 5 |
|  |  | 1.5–2.4 ng/mL | 2 |
|  |  | < 1.5 ng/mL | 0 |
|  | BMI | 18.5–24.9 kg/m² | 4 |
| **Stimulation Characteristics (25 pts)** | Stimulation Protocol | GnRH agonist | 8 |
|  |  | GnRH antagonist | 5 |
|  |  | Other protocols | 2 |
|  | Gonadotropin Dosage | Low (< 150 IU/day) | 8 |
|  |  | Medium (150–300 IU/day) | 5 |
|  |  | High (> 300 IU/day) | 2 |
|  | Stimulation Duration | Short (< 8 days) | 4 |

|  |  |  |  |
| --- | --- | --- | --- |
| **Follicular Response (35 pts)** | Follicle Size & Number | ≥ 3 follicles ≥ 17 mm | 20 |
|  |  | 2 follicles ≥ 17 mm | 15 |
|  |  | 1 follicle ≥ 17 mm | 10 |
|  | Estradiol Levels | ≥ 2,000 pg/mL | 10 |
|  |  | 1,000–1,999 pg/mL | 5 |
|  |  | < 1,000 pg/mL | 1 |
|  | Follicular Growth Rate | Fast growth (> 2 mm/day) | 5 |
|  |  |  |  |

|  |  |
| --- | --- |
| **Score Range** | **Trigger Timing (LMP + x days)** |
| **75–80 points** | LMP + 10–11 days |
| **70–74 points** | LMP + 11–12 days |
| **65–69 points** | LMP + 12–13 days |
| **60–64 points** | LMP + 13–14 days |
| **< 60 points** | LMP + 14–15 days or consider alternative strategies |

**Trigger Day Prediction Based on Total Score (out of 80)**