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Psychiatry and Addictions Case Conference

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"SHE'S JUST HORMONAL": COMMON MISCONCEPTIONS ABOUT PREMENSTRUAL MOOD SYNDROMES

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project ECHO

SPEAKER DISCLOSURES

No conflicts of interest to disclose

PLANNER DISCLOSURES

The following series planners have no relevant conflicts of interest to disclose; other disclosures have been mitigated.

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OBJECTIVES

1. To address 3 common misconceptions about premenstrual mood syndromes
2. To distinguish clinical features of premenstrual syndrome, premenstrual exacerbation, and premenstrual dysphoric disorder, and review how to identify each in clinical practice
3. To summarize existing evidence for treatment of premenstrual dysphoric disorder

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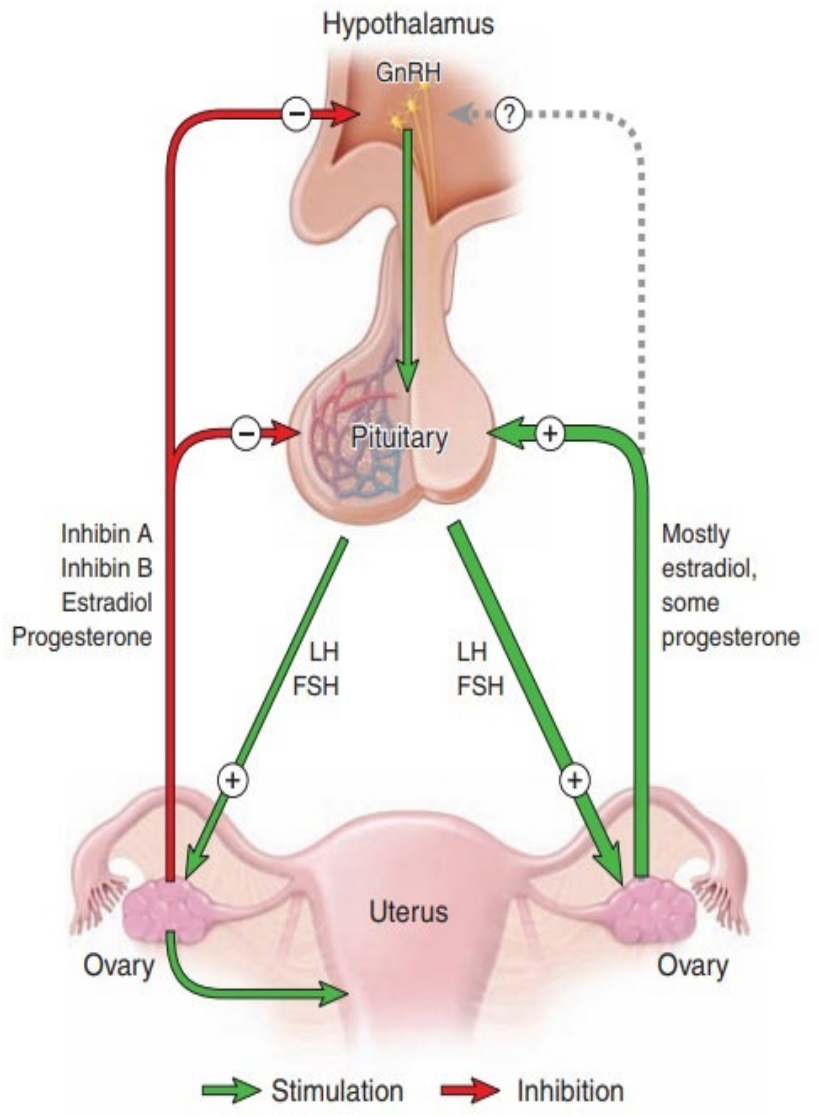
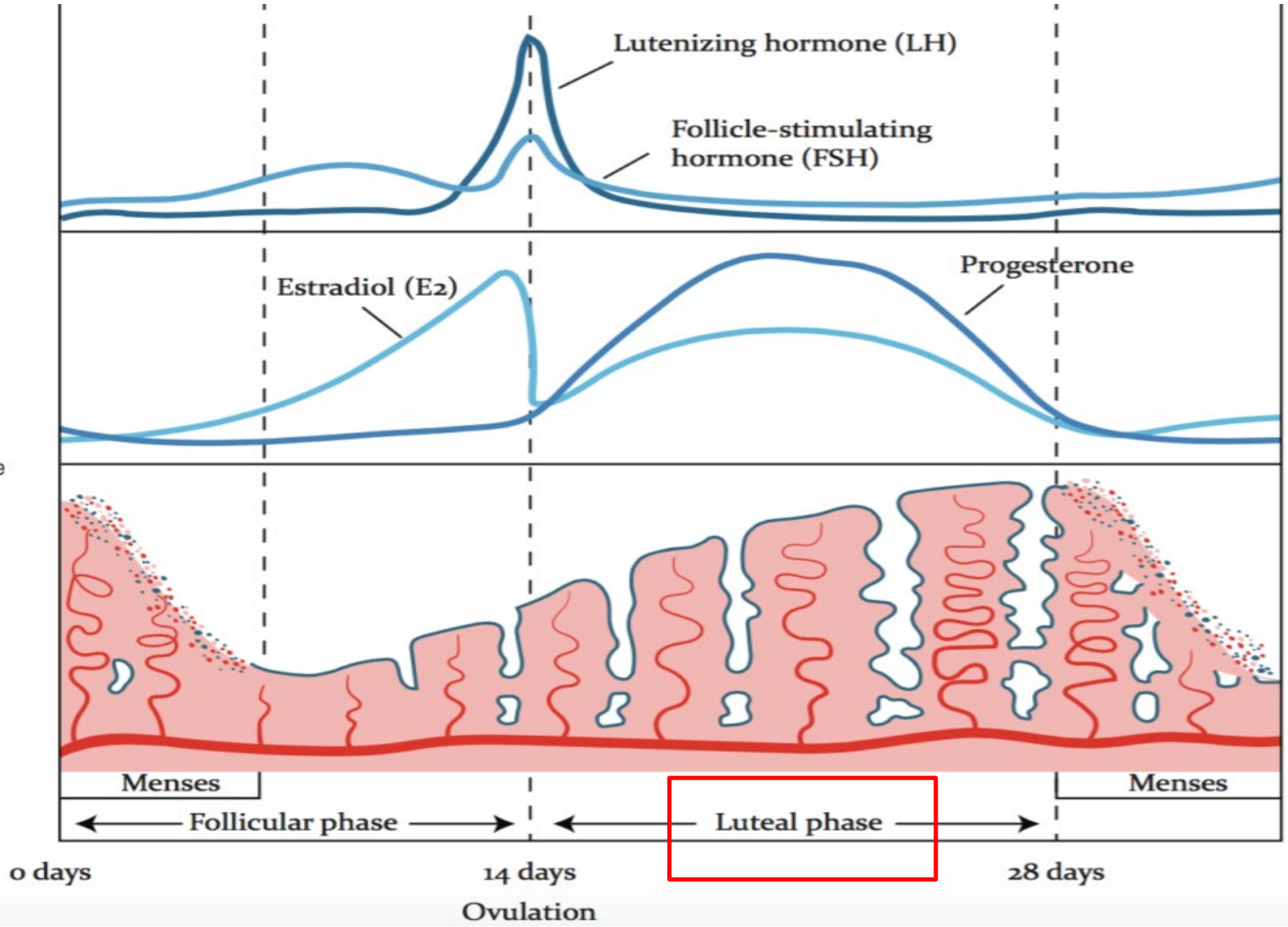
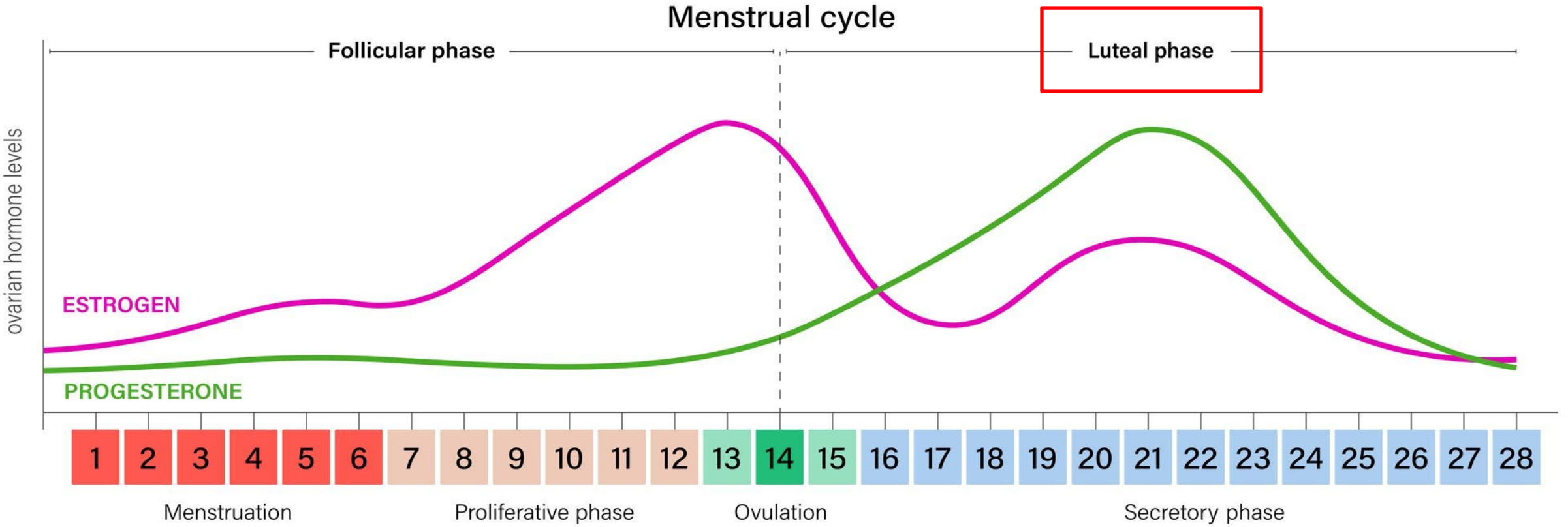
BACK TO BASICS: THE MENSTRUAL CYCLE





MISCONCEPTION 1: PREMENSTRUAL MOOD SYMPTOMS ARE THE RESULT OF HORMONAL IMBALANCES



It is not absolute levels of hormones, but sensitivity to normal hormonal fluctuations that incurs susceptibility to mood changes

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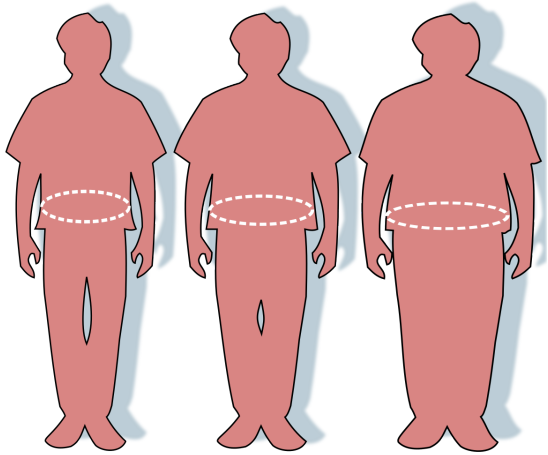
MISCONCEPTION 2: IT'S JUST "PMS" AND IT'S ALL THE SAME

- 80-95% of women experience premenstrual physical and emotional symptoms
- 3 Types:
  - **Premenstrual Syndrome (PMS):** pattern of symptoms, occurs in 5 days prior to menses in at least 3 consecutive cycles and resolves with menstruation
  - **Premenstrual Exacerbation (PME):** Exacerbation of underlying psychiatric illness during luteal phase
  - **Premenstrual Dysphoric Disorder (PMDD):** DSM-5 diagnosis, at least 5 symptoms present in final week before onset of menses and become minimal or absent in the week post-menses, cause significant distress or interference in functioning

EPIDEMIOLOGY

- PMDD ~ 6.4%, onset near age of menarche
- Risk Factors:
  - Genetics: BDNF, ESR1+2, SERT
  - Metabolic Syndrome
  - Diet
  - Nicotine use
  - Hx of trauma



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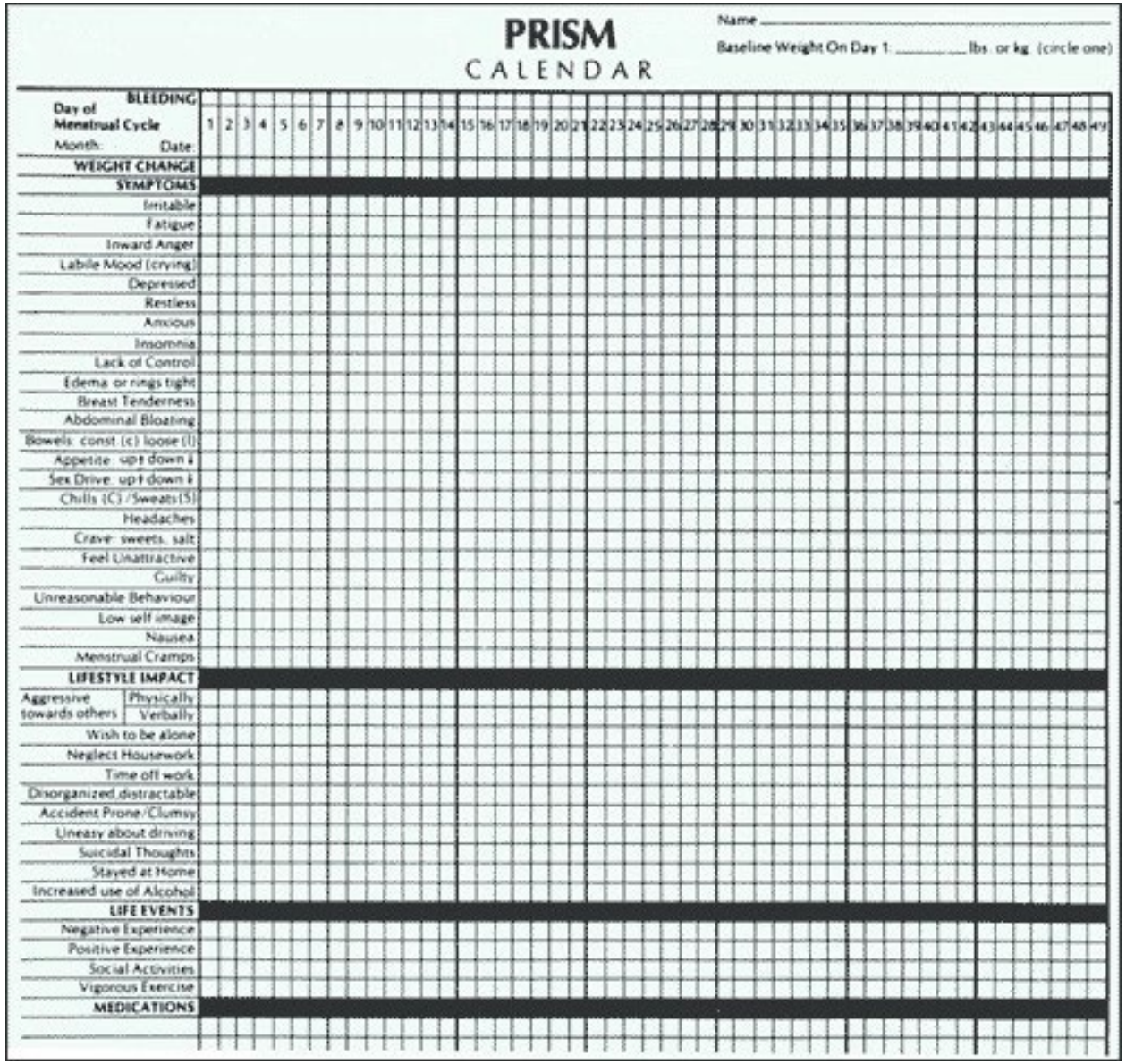
SCREENING AND DIAGNOSIS OF PMDD

- Retrospective report is time-efficient, most accurate is prospective symptom tracking
  - Premenstrual Assessment Form
  - Premenstrual Symptoms Screening Tool
  - *Daily Record of Severity of Problems (DRSP)
  - *Prospective Rating of the Impact and Severity of Menstruation (PRISM)
- Diagnostic Criteria
  - Mood symptoms that cause functional impairment
  - 5 or more symptoms beginning during luteal phase, minimal or absent during follicular phase
  - Prospective mood tracking during at least 2 menstrual cycles

PROSPECTIVE DAILY MOOD LOGS



PRISM
CALENDAR

Name _____

Baseline Weight On Day 1: _____ lbs. or kg. (circle one)

Day of Menstrual Cycle	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49
BLEEDING																																																	
Month: Date:																																																	
WEIGHT CHANGE																																																
SYMPTOMS																																																
Irritable																																																
Fatigue																																															
Inward Anger																																															
Labile Mood (crying)																																															
Depressed																																															
Restless																																															
Anxious																																															
Insomnia																																															
Lack of Control																																															
Edema or rings tight																																															
Breast Tenderness																																															
Abdominal Bloating																																															
Bowels: const.(c) loose (l)																																															
Appetite: up↑ down↓																																															
Sex Drive: up↑ down↓																																															
Chills (C) / Sweats (S)																																															
Headaches																																															
Crave: sweets, salt																																															
Feel Unattractive																																															
Guilty																																															
Unreasonable Behaviour																																															
Low self image																																															
Nausea																																															
Menstrual Cramps																																															
LIFESTYLE IMPACT																																															
Aggressive towards others: Physically																																															
Aggressive towards others: Verbally																																															
Wish to be alone																																															
Neglect Housework																																															
Time off work																																															
Disorganized, distractable																																															
Accident Prone/Clumsy																																														
Uneasy about driving																																															
Suicidal Thoughts																																															
Stayed at Home																																															
Increased use of Alcohol																																															
LIFE EVENTS																																															
Negative Experience																																															
Positive Experience																																															
Social Activities																																															
Vigorous Exercise																																															
MEDICATIONS																																															

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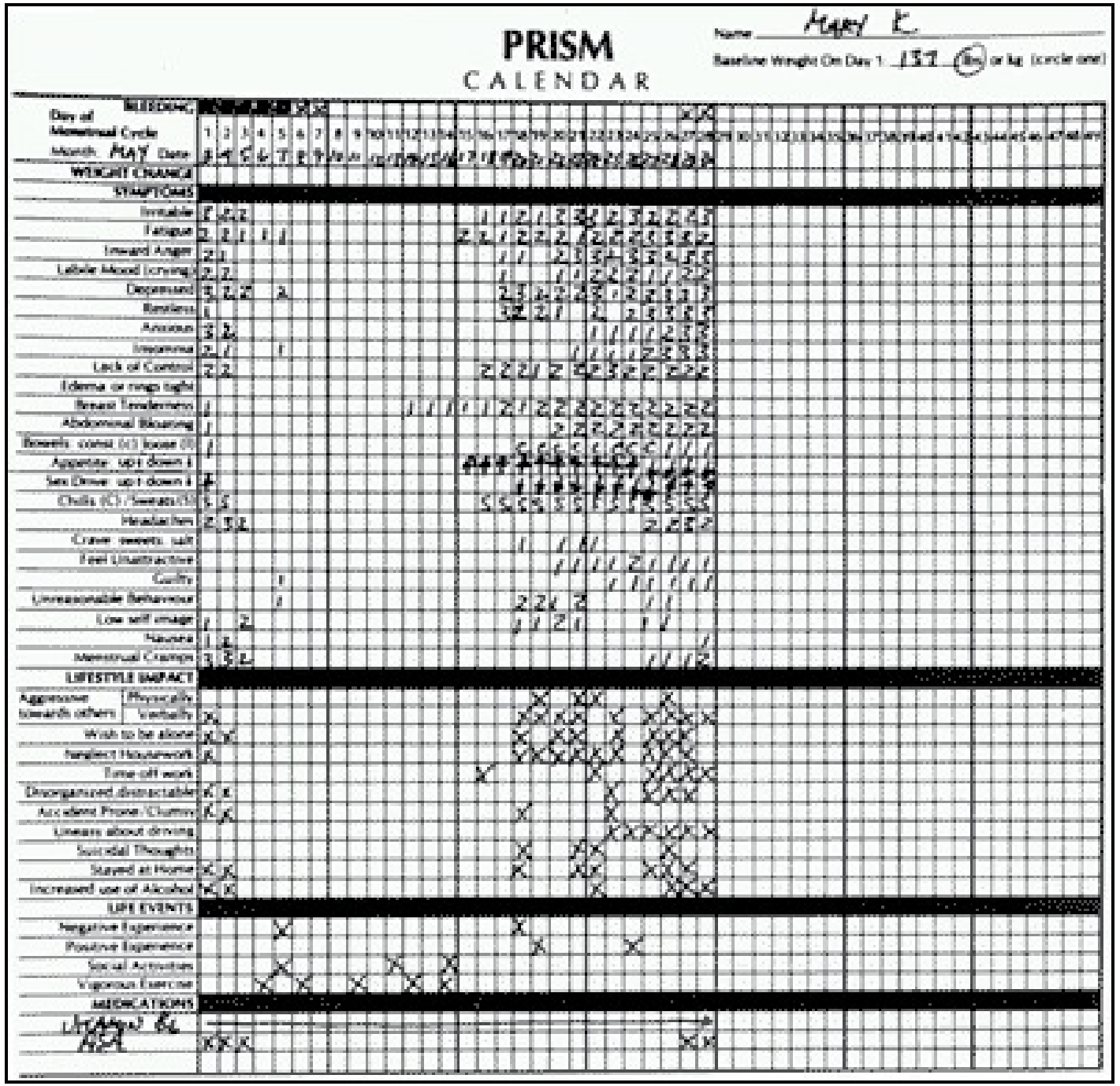

DSM-5 CRITERIA FOR PMDD

Table 2. Diagnostic Criteria for Premenstrual Dysphoric Disorder

A. In the majority of menstrual cycles, at least five symptoms must be present in the final week before the onset of menses, start to improve within a few days after the onset of menses, and become minimal or absent in the week postmenses.

B. One (or more) of the following symptoms must be present:
   1. Marked affective lability (e.g., mood swings; feeling suddenly sad or tearful, or increased sensitivity to rejection).
   2. Marked irritability or anger or increased interpersonal conflicts.
   3. Marked depressed mood, feelings of hopelessness, or self-deprecating thoughts.
   4. Marked anxiety, tension, and/or feelings of being keyed up or on edge.

C. One (or more) of the following symptoms must additionally be present, to reach a total of five symptoms when combined with symptoms from Criterion B above.
   1. Decreased interest in usual activities (e.g., work, school, friends, hobbies).
   2. Subjective difficulty in concentration.
   3. Lethargy, easy fatigability, or marked lack of energy.
   4. Marked change in appetite; overeating; or specific food cravings.
   5. Hypersomnia or insomnia.
   6. A sense of being overwhelmed or out of control.
   7. Physical symptoms such as breast tenderness or swelling, joint or muscle pain, a sensation of "bloating," or weight gain.

NOTE: *The symptoms in Criteria A–C must have been met for most menstrual cycles that occurred in the preceding year.*

D. The symptoms are associated with clinically significant distress or interference with work, school, usual social activities, or relationships with others (e.g., avoidance of social activities; decreased productivity and efficiency at work, school, or home).

E. The disturbance is not merely an exacerbation of the symptoms of another disorder, such as major depressive disorder, panic disorder, persistent depressive disorder (dysthymia), or a personality disorder (although it may co-occur with any of these disorders).

F. Criterion A should be confirmed by prospective daily ratings during at least two symptomatic cycles. (NOTE: The diagnosis may be made provisionally before this confirmation.)

G. The symptoms are not attributable to the physiologic effects of a substance (e.g., a drug of abuse, a medication, other treatment) or another medical condition (e.g., hyperthyroidism).

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MISCONCEPTION 3: THE TREATMENT IS BIRTH CONTROL

- First-line treatment for PMDD: SSRIs
  - Decrease in serotonergic function during luteal phase
  - Luteal-phase only dosing comparative efficacy to continuous dosing
  - Some evidence for SNRIs and TCAs
- Hormonal Interventions
  - OCPs: *Drospirenone
  - GnRH Agonists, Spironolactone
- Non-pharmocological

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WAIT- HOW CAN SSRIS WORK THIS WAY?

- Usually, there is a 4-6 week delay between initiation of treatment and clinical response in MDD
- Patients with PMDD respond much more quickly, within days, suggesting a different pathophysiology
  - SSRIs increase synthesis of allopregnanolone
  - Estrogen-serotonin interactions
  - Genetics and heritability (ESR1), brain structure and function, and HPG axis

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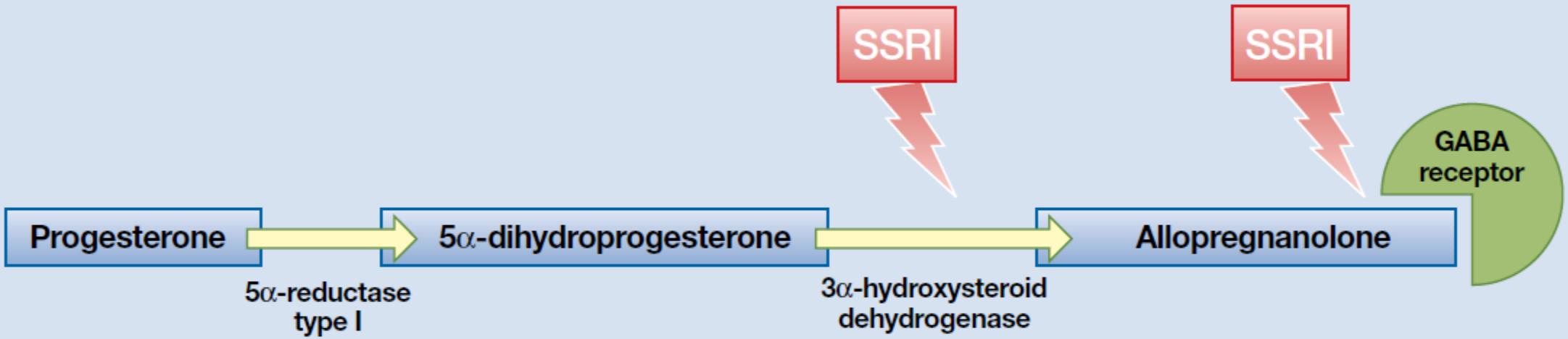
Figure 4

Conversion of progesterone to ALLO and the SSRI influence



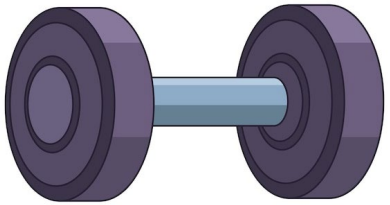
SSRIs enhance the sensitivity of $GABA_A$ receptors or promote the formation of more ALLO as shown here. This is one possible mechanism by which they could be helping to alleviate PMDD symptoms.

ALLO: allopregnanolone; GABA: γ-aminobutyric acid; PMDD: premenstrual dysphoric disorder; SSRI: selective serotonin reuptake inhibitor

HORMONAL INTERVENTIONS

- Oral Contraception
  - FDA-Approved OCP containing drospirenone
  - Risks: Thromboembolism
  - Recommended for patients also intending to take them for contraception
- GnRH Agonists (Leuprolide, Goserelin)- for treatment-resistant cases only
- Danazol, Spironolactone, Bromocriptine and Cabergoline

NON-PHARMACOLOGICAL TREATMENTS



- Behavioral
  - CBT
  - Mindfulness-based stress reduction
- Lifestyle Modifications
  - Minimize caffeine, salt, and alcohol
  - Optimize sleep and exercise
  - Scheduling changes that reduce stress during the premenstrual week(s)
- Supplements: Calcium, Vitamin E
- Surgical Oophorectomy as last-line treatment

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SUMMARY

- Misconception 1: Premenstrual mood symptoms are the result of hormonal imbalances → **It is not absolute levels of hormones, but sensitivity to normal hormonal fluctuations that incurs susceptibility to mood changes**
- Misconception 2: It's just "PMS" and it's all the same → **There are key clinical distinctions between premenstrual syndrome (PMS), premenstrual exacerbation (PME), and premenstrual dysphoric disorder (PMDD)**
- Misconception 3: The treatment for PMDD is birth control → **First-line treatment is SSRIs (continuous, luteal phase, or symptom-onset dosing), though can consider OCPs for contraception or for treatment-resistant cases**

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QUESTIONS?

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- Steiner, M., Li, T. (2013) Luteal Phase and Symptom-Onset Dosing of SSRIs/SNRIs in the Treatment of Premenstrual Dysphoria: Clinical Evidence and Rationale, *CNS Drugs* 27: 583-589.

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IMAGES

- Slide 4: “Hypothalamic-Pituitary-Ovarian Axis” by BrainKart, obtained from https://www.brainkart.com/article/Hypothalamic-Pituitary-Ovarian-Axis_25823/
- Slide 4: “The Menstrual Cycle” by Jasmine Pedroso, Kindbody, obtained from https://kindbody.com/the-menstrual-cycle/
- Slide 5: “Menstrual Cycle” by Elara Care and Jasveer Matharu from https://elara.care/hormones/menstrual-cycle-hormones-and-their-functions/
- Slide 9 and 10: Figure 3 and 4 from Reid, R. (2017) Premenstrual Dysphoric Disorder, *Endotext*, MDText.com, Inc.
- Slide 11: Table 2 from Hofmeister, S., and Bodden, S. (2016) Premenstrual Syndrome and Premenstrual Dysphoric Disorder, *Am Fam Physician* 94(3): 236-240.
- Slide 14: Figure 4 from Raffi, E.R. & Freeman, M.P. (2017) The Etiology of Premenstrual Dysphoric Disorder: 5 Interwoven Pieces, *Current Psychiatry* 16(9): 20-28. Obtained from https://womensmentalhealth.org/posts/etiology-premenstrual-dysphoric-disorder/