

The beneficial effect on candidiasis of a food supplement based on a formulation of probiotics

Submission date	Recruitment status	<input checked="" type="checkbox"/> Prospectively registered
12/01/2026	No longer recruiting	<input type="checkbox"/> Protocol
Registration date	Overall study status	<input type="checkbox"/> Statistical analysis plan
22/01/2026	Ongoing	<input type="checkbox"/> Results
Last Edited	Condition category	<input type="checkbox"/> Individual participant data
23/01/2026	Infections and Infestations	<input checked="" type="checkbox"/> Record updated in last year

Plain English summary of protocol

Background and study aims

A probiotic dietary supplement containing *L. plantarum* PBS067, *L. rhamnosus* LRH020, and *B. animalis* subsp. *lactis* BL050 may have a positive impact on the vaginal microbiota. The aim of this study is to demonstrate that this dietary supplement reduces the incidence of vulvovaginal *Candida* spp. infections and manages the symptoms of candidiasis in women of reproductive age.

Who can participate?

Women aged between 18 and 45 years with a vulvovaginal *Candida* spp. infection and a history of recurrent vulvovaginal candidiasis, defined as three or more *Candida* spp. infections in less than 1 year

What does the study involve?

Participants will be randomly allocated to consume one capsule daily of either the supplement or a placebo (dummy). After an initial 2-week treatment period and a subsequent 2-week washout phase, participants will enter a 4-month 'maintenance phase' during which they will take the supplement or placebo for only 1 week per month. Throughout the entire treatment period, participants must visit the study center if they experience one or more symptoms of candidiasis. During the medical visit, a medical evaluation will be conducted to determine the need for antifungal treatment.

What are the possible benefits and risks of participating?

An improvement in the incidence of recurrent symptomatic vulvovaginal infections due to *Candida* spp., and therefore a reduction in the need for antifungal treatment, is expected following the administration of the supplement. However, it is possible that no benefit will be observed.

Where is the study run from?

COMEGEN Soc. Coop. Sociale (Italy)

When is the study starting and how long is it expected to run for?

January 2026 to July 2026

Who is funding the study?

SynBalance SRL (Italy)

Who is the main contact?

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Additional identifiers

Clinical Trials Information System (CTIS)

Not applicable

Integrated Research Application System (IRAS)

Not applicable

ClinicalTrials.gov (NCT)

Not applicable

Protocol serial number

FSYNRVVC24_01

Study information

Scientific Title

Efficacy study of a food supplement based on a formulation of probiotics on the incidence of recurrent symptomatic vulvo-vaginal infections from *Candida* spp. and on the management of candidiasis symptoms, in women of childbearing age to recurrent vulvovaginal candidiasis: single-centre, randomized, placebo-controlled, double-blind clinical study

Acronym

FSYNRVVC24

Study objectives

The intake of a dietary supplement containing *Lactobacillus plantarum* PBS067, *Lactobacillus rhamnosus* LRH020 and *Bifidobacterium animalis* subs. *lactis* BL050 has been hypothesized to have a positive impact on the vaginal microbiota. Therefore, the aim of this efficacy study is to demonstrate that the dietary supplement under study is effective in reducing the incidence of symptomatic recurrent vulvovaginal *Candida* spp. infections and in managing the symptoms of candidiasis in women of reproductive age with recurrent vulvovaginal candidiasis.

Ethics approval required

Ethics approval required

Ethics approval(s)

approved 17/12/2024, Ethics committee of CAMPANIA 1 (Via Mariano Semmola 53, Napoli, 80131, Italy; +39 (0)8117770131; comitatoetico@istitutotumori.na.it), ref: 6/24

Study design

Monocentric randomized placebo-controlled double-blind trial

Primary study design

Interventional

Study type(s)

Prevention

Health condition(s) or problem(s) studied

Vulvovaginal candidiasis

Interventions

Participants will consume one capsule daily of either a probiotic formulation (L. plantarum DSM24937, L. rhamnosus DSM 25568, and B. animalis subsp. lactis DSM25566) or a placebo, according to their randomization group. To maintain the double-blind design, both treatments (food supplements and placebo) will be made unrecognizable as the packaging will be identical, and the dosage forms will be the same in color, shape, weight and taste. After an initial 2-week treatment period and a subsequent 2-week washout phase, participants will enter a 4-month 'maintenance phase' during which they will take the supplement or placebo for only 1 week per month.

Throughout the entire treatment period, participants must visit the study center if they experience one or more symptoms of candidiasis. During the medical visit, a medical evaluation will be conducted to determine the need for antifungal treatment (vulvovaginal swab to confirm *Candida* spp. infection), and the Sobel scale and the SF-12 questionnaire will be administered.

The study will evaluate the difference between the percentages observed in the two study groups of participants: "responders" (those who did not require antifungal treatment for symptomatic vulvovaginal *Candida* spp. infections during the 5-month study period, or who only needed antifungal treatment once for symptomatic vulvovaginal *Candida* spp. infections during the 5-month study period) and "non-responders" (those who required antifungal treatment more than once for symptomatic vulvovaginal *Candida* spp. infections during the 5-month study period).

A secondary exploratory analysis will be conducted to estimate the percentage of participants falling into the following categories: "responder" (no *Candida* spp. infection during the 5-month study period); "partial responder" (one *Candida* spp. infection during the 5-month study period); "no responder" (two or more *Candida* spp. infections during the 5-month study period).

Intervention Type

Supplement

Primary outcome(s)

The number of recurrent and symptomatic vulvovaginal *Candida* spp. infections and the need for antifungal treatment. The *Candida* spp. infection is confirmed through a vulvovaginal swab and the need for the antifungal treatment is determined by medical assessment whenever the participants visit the experimental center if they experience at least one typical symptom of candidiasis.

Key secondary outcome(s)

1. Symptoms of recurrent candidiasis measured using the Sobel scale at baseline (T0), at the end of the maintenance period (T5), and at each recurrence onset
2. Pro-inflammatory cytokine profile (IL-17, IL-6, TNF- α) evaluated using swab at baseline (t0) and at the end of the maintenance period (t5)
3. Vulvovaginal microbiome evaluated using swab and eNAT at baseline (t0) and at the end of the maintenance period (t5)

4. Quality of life measured using the Short Form-12 (SF-12) questionnaire at baseline (T0), at the end of the maintenance period (T5), 28 days after the end of the treatment (follow-up – TFW), and at each occurrence of recurrence

Completion date

26/07/2026

Eligibility

Key inclusion criteria

1. Female
2. Aged between 18 and 45 years
3. Capable of understanding and signing the informed consent
4. Capable of understanding and complying with the protocol requirements
5. Negative pregnancy test
6. Negative HIV test
7. Who are not taking, and will not take, any type of medication throughout the study period, except for antifungal treatment for Candida spp. infection, when necessary
8. Who have a history of recurrent vulvovaginal candidiasis (RVVC), defined as three or more Candida spp. infections in less than 1 year
9. Who present with a vulvovaginal Candida spp. infection at the screening phase, confirmed by microbiological culture

Participant type(s)

Healthy volunteer

Healthy volunteers allowed

Yes

Age group

Adult

Lower age limit

18 years

Upper age limit

45 years

Sex

Female

Total final enrolment

0

Key exclusion criteria

1. Male
2. Age <18 years and > 45 years
3. Pregnant, suspected to be pregnant, or planning to become pregnant during the study period
4. In the lactation phase
5. Not self-sufficient

6. Who are unwilling to cooperate
7. Who have difficulty attending the study site within the scheduled times
8. Who are deemed ineligible by the investigator due to the presence of other conditions considered incompatible with enrollment and requiring pharmacological treatments
9. Diagnosed with acquired immunodeficiency from HIV
10. With known allergies to the ingredients of the experimental products (active or placebo)
11. Who have other vulvovaginal infections unrelated to Candida spp.
12. Who abuse alcohol, drugs, nicotine, caffeine, or theine

To ensure homogeneous distribution of the type of contraceptive method used by the study participants across the two experimental groups, randomization will be conducted in such a way that both groups will have a similar number of women using oral contraceptives.

Date of first enrolment

23/01/2026

Date of final enrolment

26/01/2026

Locations

Countries of recruitment

Italy

Study participating centre

COMEGEN Soc. Coop. Sociale

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Sponsor information

Organisation

SynBalance SRL

Funder(s)

Funder type

Not defined

Funder Name

Results and Publications

Individual participant data (IPD) sharing plan

The datasets generated and/or analysed during the current study will be published as a supplement to the subsequent results publication.

IPD sharing plan summary

Published as a supplement to the results publication