

A Rare, But Serious Disease: Low-Grade Serous Ovarian Cancer (LGSOC)

LGSOC is a rare ovarian cancer that is insidious and persistent. LGSOC starts in the thin layer of tissue around the ovaries (also known as the epithelium) and can grow persistently. Low-grade means the cancer cells look a lot like normal cells, and serous means the cancer started in the serous membrane, which is part of the epithelium.

LGSOC is distinct and different from high-grade serous ovarian cancer (HGSOC), a more common ovarian cancer. Due to these differences from HGSOC, accurate diagnosis is critical for tailoring appropriate LGSOC management. In the LGSOC Patient Impact Survey sponsored by Verastem, 81% of participants who experienced disease symptoms said it took an average of nearly three years to get an accurate diagnosis and most reported their path to diagnosis as difficult (73%) or frustrating (68%).

Approximately

6,000–8,000

women with LGSOC live in the U.S.

and

1,000–2,000

cases are diagnosed each year.

The majority of patients report a negative impact of LGSOC on their mental and physical health, fertility, and long-term quality of life. The current standard of care for this disease includes surgery and off-label use of hormonal therapy, targeted therapy, and chemotherapy to treat LGSOC.

Fast Facts



LGSOC affects younger women with **bimodal peaks of diagnosis at ages between 20–30 and 50–60.**



Common signs and symptoms, including bloating, intense back or pelvic pain, and repeated changes to bowel movements, **are nonspecific and overlap with other conditions.**



Diagnosis is often difficult and can be significantly delayed, with **up to 90% of patients diagnosed at an advanced stage.**



More than 80% of patients with LGSOC **experience recurrence.**



People with LGSOC have a **median survival of less than 11 years.**

The Role of *KRAS* Mutations in LGSOC

The RAS/MAPK pathway is a primary driver of tumor growth: mutations that activate the pathway, including mutations in the *KRAS* gene, are found in many cancers and often correlate with poor prognosis.

~70% of LGSOC shows **RAS pathway-associated mutations**

~30% of patients with LGSOC have ***KRAS* mt**

LGSOC is Highly Recurrent and Challenging to Treat

68% of patients reported in the LGSOC Patient Impact Survey that their biggest emotional burden is living with the uncertainty that their cancer may return.

In the survey, 60% of respondents reported one of the biggest challenges in managing their disease is that their treatment options are limited, with most (90%) feeling like they are getting the “treatment leftovers” instead of regimens studied in LGSOC.

Patients are typically treated with off-label systemic treatments, which have limitations:

- Off-label use of hormone therapy and chemotherapy provide poor to moderate clinical response rates and are often discontinued due to toxicity and poor tolerability
- LGSOC often responds poorly to chemotherapy compared with high-grade serous ovarian cancer (HGSOC), making treatment more challenging
- Due to high rates of recurrence and limited treatment options, patients will commonly receive several lines of therapy with repeated mechanisms of action throughout their treatment

There remains a critical and ongoing need for more effective and tolerable therapies for this rare form of ovarian cancer.

About **4 out of 5** people treated for LGSOC will experience a recurrence of their cancer.