

PUT GBM ON PAUSE



PUT LIFE ON PLAY



Josh is JB's brother and caregiver.

JB is an Optune user and Patient Ambassador.

OPTUNE® + TMZ HAS BEEN PROVEN TO **PROVIDE LONG-TERM QUALITY SURVIVAL** TO PATIENTS WITH NEWLY DIAGNOSED GBM^{1,2,*}

Patient image reflects the health status of the patient at the time the photo was taken.

GBM, glioblastoma; EORTC QLQ-C30, European Organisation for Research and Treatment of Cancer core quality of life questionnaire; TMZ, temozolomide.

*Patient-reported data collected per EORTC QLQ-C30 at baseline and Months 3, 6, 9, and 12. The 30-question survey covered 5 daily-functioning domains (Physical, Role, Social, Emotional, and Cognitive).

Optune is intended as a treatment for adult patients (22 years of age or older) with histologically-confirmed glioblastoma multiforme (GBM).

Optune with temozolomide is indicated for the treatment of adult patients with newly diagnosed, supratentorial glioblastoma following maximal debulking surgery, and completion of radiation therapy together with concomitant standard of care chemotherapy.

Selected safety information

Do not use Optune in patients with an active implanted medical device, a skull defect (such as, missing bone with no replacement), or bullet fragments. Use of Optune together with implanted electronic devices has not been tested and may theoretically lead to malfunctioning of the implanted device. Use of Optune together with skull defects or bullet fragments has not been tested and may possibly lead to tissue damage or render Optune ineffective.

Please see the Important Safety Information for Optune on page 10 and the accompanying Optune Instructions For Use (IFU) for complete information regarding the device's indications, contraindications, warnings, and precautions.

novocure®

OPTUNE®
Elevate Expectations

GBM: an aggressive disease that is challenging to control

GBM is always present and continually proliferating³

- The continuous division, migration, and invasion of GBM has been difficult to control over time^{4,5}

With a high risk of GBM recurrence, every appropriate treatment available should be used to combat this persistent threat

- For more than a decade, post-surgery radiation and chemotherapy have been the standard of care⁶

GBM, glioblastoma.

Optune®: a well-suited part of the treatment plan for newly diagnosed GBM

Optune provides continuous action against GBM progression

- Optune delivers TTFields to selectively and continuously disrupt mitosis for as long as it is worn^{7,8}

Including Alternating Electric Field Therapy (Optune) as part of the treatment plan for newly diagnosed GBM gives patients every approved method to prevent progression

- 5-year survival results published in *JAMA*⁹ support an update to the NCCN Clinical Practice Guidelines in Oncology (NCCN Guidelines®) for Central Nervous System Cancers¹⁰



The updated NCCN Guidelines® now include alternating electric field therapy (Optune) in combination with temozolomide (TMZ) following maximal safe resection and standard brain radiation therapy with concurrent TMZ as Category 1 recommended treatment option for patients with newly diagnosed supratentorial glioblastoma (GBM) and good performance status.*

There is uniform NCCN consensus for this recommendation based on high-level evidence (Category 1).

*The NCCN defines good performance as Karnofsky Performance Score (KPS) ≥ 60 . The trial for which the IFU is based used an eligibility criteria of KPS ≥ 70 .

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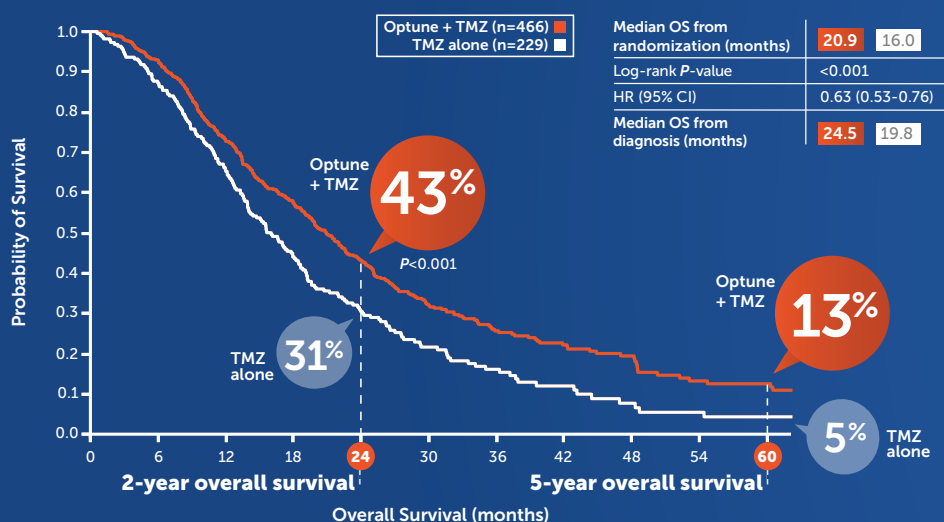
Please see the accompanying Optune IFU for complete information regarding the device's indications, contraindications, warnings, and precautions.

In newly diagnosed GBM,

Optune® + TMZ provided an unprecedented long-term survival benefit that increased with more time on Optune

Survival with Optune + TMZ vs TMZ alone was significantly higher at the 2-year landmark analysis and remained higher at 5 years¹

Overall survival (5-year survival analysis)^{1,11}



Median OS was significantly extended with Optune—by nearly 5 months ($P<0.001$)¹

Proven to provide the best opportunity for
GREATER OVERALL SURVIVAL AT 5 YEARS
vs TMZ alone (13% vs 5%)¹

Optune + TMZ also significantly improved PFS vs TMZ alone

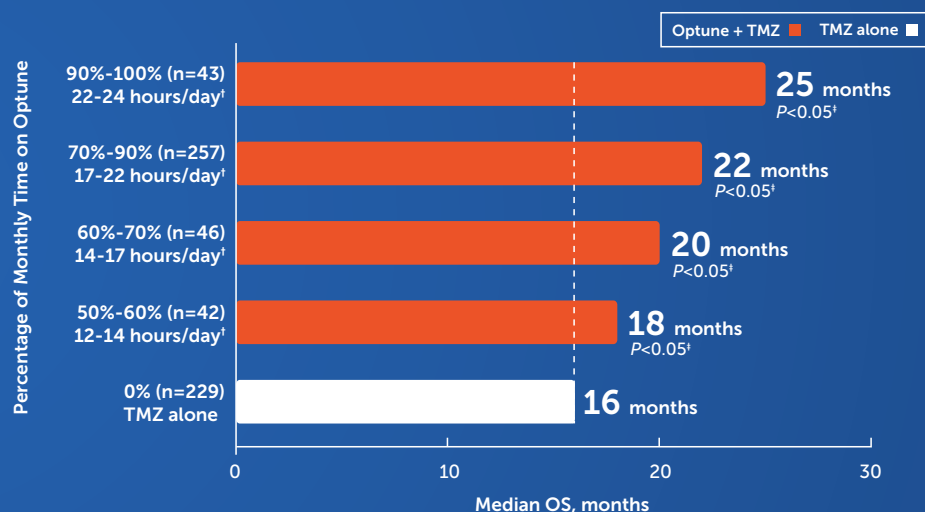
- Median PFS: 6.7 months vs 4.0 months ($P<0.001$)¹

Selected safety information

Do not use Optune in patients that are known to be sensitive to conductive hydrogels. In this case, skin contact with the gel used with Optune may commonly cause increased redness and itching, and rarely may even lead to severe allergic reactions such as shock and respiratory failure.

More time on Optune predicted increased significant survival benefit¹²

Median OS by percentage of monthly time on Optune*



*Based on amount of time Optune was turned on and providing therapy over the course of a month. This data reflects the average patient usage of Optune for the first 6 months of treatment (months 1-6).¹³

[†]Approximation, based on monthly usage.

[‡]vs TMZ alone.

- Monthly usage was a predictor of survival benefit, independent of other prognostic factors such as KPS, age, or MGMT methylation status¹²

86% of patients received a survival benefit from Optune because they used it more than half the time (n=388/450)¹²

GBM, glioblastoma; KPS, Karnofsky Performance Score; MGMT, O-6-methylguanine-DNA methyltransferase; OS, overall survival; PFS, progression-free survival; TMZ, temozolomide.

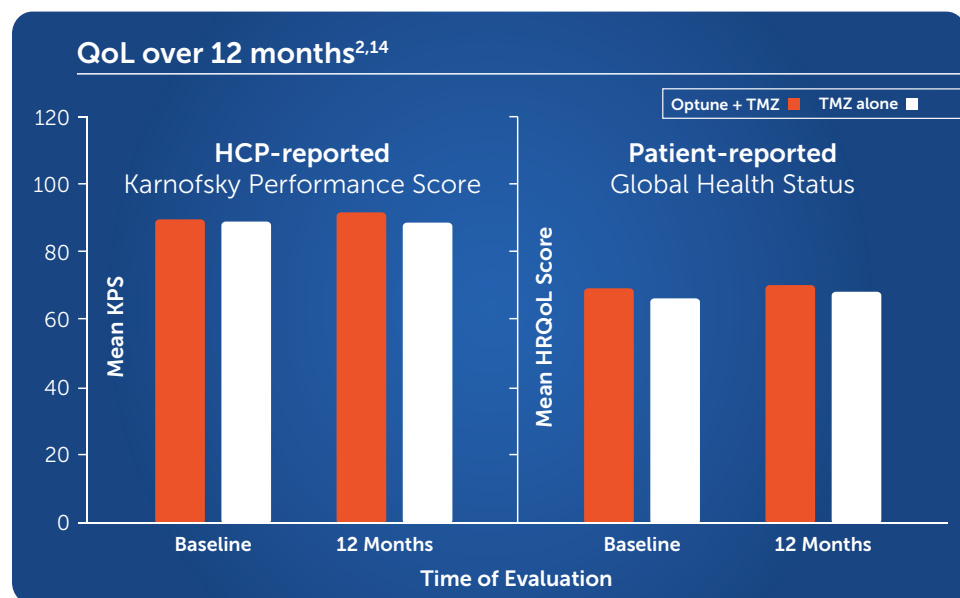
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OPTUNE[®]
Elevate Expectations

In newly diagnosed GBM,

Patients treated with Optune® + TMZ maintained QoL over time and across predefined daily-functioning domains

Both HCPs and patients reported stable QoL evaluation scores up to 1 year of Optune use^{2,14,*†}



- HCP-reported KPS and patient-reported Global Health Status were
 - Maintained from baseline through 12 months of follow-up
 - Comparable with the TMZ alone arm

*HCP-reported data collected per Karnofsky Performance Score (KPS) assessment at baseline and then repeated monthly. Patient functional status via KPS (at multiple time points) measured patient independence in activities of daily living.

†Patient-reported data collected per EORTC QLQ-C30 at baseline and Months 3, 6, 9, and 12. This 30-question survey covered 5 daily-functioning domains (Physical, Role, Social, Emotional, and Cognitive).

- In the pivotal study, patients were treated with the first model of Optune, which was twice as large in size and weight (6 lb) than the currently available device (2.7 lb)

Selected safety information

Optune can only be prescribed by a healthcare provider that has completed the required certification training provided by Novocure® (the device manufacturer).

Physical, Role, Social, Emotional, and Cognitive Functioning for patients treated with Optune + TMZ all remained stable and comparable with the TMZ alone arm²

Functioning domain	Sample questions from the EORTC QLQ-C30 core questionnaire ¹⁵
Physical	Do you have any trouble doing strenuous activities, like carrying a heavy shopping bag or a suitcase?
Role	Were you limited in doing either your work or other daily activities?
Social	Has your physical condition or medical treatment interfered with your social activities?
Emotional	Did you feel tense?
Cognitive	Have you had difficulty remembering things?



*“Incorporating Optune into my day-to-day life has been very manageable.
... After the brief adjustment period, it’s easy to do most things.”
-JB, Optune user and Patient Ambassador*

EORTC QLQ-C30, European Organisation for Research and Treatment of Cancer core quality of life questionnaire; HCPs, healthcare professionals; HRQoL, health-related quality of life; QoL, quality of life; TMZ, temozolomide.

Please see the accompanying Optune IFU for complete information regarding the device’s indications, contraindications, warnings, and precautions.

 **OPTUNE**[®]
Elevate Expectations

In newly diagnosed GBM,

Optune[®] was safely combined with TMZ

No late-emerging serious AEs were seen in the 5-year follow-up^{1,9}

Incidence of grade 3/4 AEs occurring in ≥5% of patients during 5 years of follow-up	Optune + TMZ (n=456) %	TMZ alone (n=216) %
≥1 AE	48	44
Blood and lymphatic system disorders	13	11
Thrombocytopenia	9	5
Gastrointestinal disorders	5	4
Asthenia, fatigue, and gait disturbance	9	6
Infections	7	5
Injury, poisoning, and procedural complications (falls and medical device site reaction)	5	3
Metabolism and nutrition disorders (anorexia, dehydration, and hyperglycemia)	4	5
Musculoskeletal and connective tissue disorders	5	4
Nervous system disorders	24	20
Seizures	6	6
Respiratory, thoracic, and mediastinal disorders (pulmonary embolism, dyspnea, and aspiration pneumonia)	5	5

No significant increase in serious AEs compared with TMZ alone¹

- The most common ($\geq 10\%$) AEs involving Optune in combination with TMZ were thrombocytopenia, nausea, constipation, vomiting, fatigue, medical device site reaction, headache, convulsions, and depression¹⁶
- A slightly higher incidence of grade 1/2 AEs was seen in some of the systems in the Optune + TMZ arm of the study. This is most likely a reflection of the longer duration of TMZ treatment in these patients¹
- The rate of grade 1/2 medical device site reaction was 52% for Optune + TMZ compared with 0% for TMZ alone¹
- Grade 3/4 AEs were well balanced between arms. None of the systemic grade 3/4 AEs were considered related to Optune by any of the investigators¹
- Mild-to-moderate skin irritation, the most common device-related side effect with Optune, was easily manageable, reversible, and did not result in treatment discontinuation¹

AEs, adverse events; GBM, glioblastoma; TMZ, temozolomide.

Please see the accompanying Optune IFU for complete information regarding the device's indications, contraindications, warnings, and precautions.

Important Safety Information

Indications For Use

Optune® is intended as a treatment for adult patients (22 years of age or older) with histologically-confirmed glioblastoma multiforme (GBM).

Optune with temozolomide is indicated for the treatment of adult patients with newly diagnosed, supratentorial glioblastoma following maximal debulking surgery, and completion of radiation therapy together with concomitant standard of care chemotherapy.

Important Safety Information

Contraindications

Do not use Optune in patients with an active implanted medical device, a skull defect (such as, missing bone with no replacement), or bullet fragments. Use of Optune together with implanted electronic devices has not been tested and may theoretically lead to malfunctioning of the implanted device. Use of Optune together with skull defects or bullet fragments has not been tested and may possibly lead to tissue damage or render Optune ineffective.

Do not use Optune in patients that are known to be sensitive to conductive hydrogels. In this case, skin contact with the gel used with Optune may commonly cause increased redness and itching, and rarely may even lead to severe allergic reactions such as shock and respiratory failure.

Warnings and Precautions

Optune can only be prescribed by a healthcare provider that has completed the required certification training provided by Novocure® (the device manufacturer).

Do not prescribe Optune for patients that are pregnant, you think might be pregnant or are trying to get pregnant, as the safety and effectiveness of Optune in these populations have not been established.

The most common ($\geq 10\%$) adverse events involving Optune in combination with temozolomide were thrombocytopenia, nausea, constipation, vomiting, fatigue, medical device site reaction, headache, convulsions, and depression.

Use of Optune in patients with an inactive implanted medical device in the brain has not been studied for safety and effectiveness, and use of Optune in these patients could lead to tissue damage or lower the chance of Optune being effective.

If the patient has an underlying serious skin condition on the scalp, evaluate whether this may prevent or temporarily interfere with Optune treatment.

References: 1. Optune Instructions for Use. Novocure 2018. 2. Taphoorn MJB, Dirven L, Kanner AA, et al. Influence of treatment with tumor-treating fields on health-related quality of life of patients with newly diagnosed glioblastoma: a secondary analysis of a randomized-clinical trial. *JAMA Oncol.* 2018;4(4):495-504. doi:10.1001/jamaoncol.2017.5082. 3. Hoshino T, Wilson CB, Rosenblum ML, et al. Chemotherapeutic implications of growth fraction and cell cycle time in glioblastomas. *J Neurosurg.* 1975;43:127-135. 4. Xie Q, Mittal S, Berens ME. Targeting adaptive glioblastoma: an overview of proliferation and invasion. *Neuro Oncol.* 2014;16:1575-1584. 5. Kesari S. Understanding glioblastoma tumor biology: the potential to improve current diagnosis and treatments. *Semin Oncol.* 2011;38(Suppl 4):S2-S10. 6. Stupp R, Mason WP, van den Bent MJ, et al. Radiotherapy plus concomitant and adjuvant temozolomide for glioblastoma. *N Engl J Med.* 2005;352:987-996. 7. Taillibert S, Le Rhun E, Chamberlain MC. Tumor treating fields: a new standard treatment for glioblastoma? *Curr Opin Neurol.* 2015;28:659-664. 8. Kim EH, Song HS, Yoo SH, et al. Tumor treating fields inhibit glioblastoma cell migration, invasion and angiogenesis. *Oncotarget.* 2016;7:65125-65136. 9. Stupp R, Taillibert S, Kanner A, et al. Effect of tumor-treating fields plus maintenance temozolomide vs maintenance temozolomide alone on survival in patients with glioblastoma: a randomized clinical trial. *JAMA.* 2017;318(23):2306-2316. 10. Referenced with permission from the NCCN Clinical Practice Guidelines in Oncology (NCCN Guidelines®) for Central Nervous System Cancers. V.1.2018. © 2018 National Comprehensive Cancer Network, Inc. All rights reserved. Accessed March 20, 2018. To view the most recent and complete version of the NCCN Guidelines, go online to NCCN.org. 11. Stupp R, Idbaih A, Steinberg DM, et al. Prospective, multi-center phase III trial of tumor treating fields together with temozolomide compared to temozolomide alone in newly diagnosed glioblastoma. Presented at: 2017 Annual Meeting of the American Association for Cancer Research; April 1-5, 2017; Washington, DC. Oral presentation LBA AACR CT007. 12. Toms SA, Kim CY, Nicholas G, Ram Z. Increased compliance with tumor treating fields therapy is prognostic for improved survival in the treatment of glioblastoma: a subgroup analysis of the EF-14 phase III trial [published online ahead of print December 1, 2018]. *J Neurooncol.* <https://doi.org/10.1007/s11060-018-03057-z>. 13. Novocure Data on File OPT-135. 14. Zhu JJ, Demireva P, Kanner AA, et al. Health-related quality of life, cognitive screening, and functional status in a randomized phase III trial (EF-14) of tumor treating fields with temozolomide compared to temozolomide alone in newly diagnosed glioblastoma. *J Neurooncol.* 2017;135:545-552. 15. EORTC Quality of Life Group. EORTC QLQ-C30, Version 3.0. 1995. European Organisation for Research and Treatment of Cancer, Belgium. 16. Novocure Data on File OPT-103.

Partnering with your patients and your practice at every step of the journey

nCompass™: an award-winning support program with comprehensive services for your patients using Optune

Reimbursement assistance

- Supports your patients and your practice through the reimbursement process, starting with an investigation of benefits
- Out-of-pocket cost for treatment will be determined based on the patient's household income and insurance plan. Novocure is committed to identifying resources and programs to minimize the cost of Optune for patients who are uninsured, underinsured, or have a household income of <\$150,000*

Customized support based on patient or caregiver needs, including

- In-person device education
- Resources and tips for using Optune
- Technical support via phone
- Reordering supplies



Contact nCompass for all your patients' Optune support needs



Call us any time of day:
1-855-281-9301 (toll-free)



Or email us:
support@novocure.com

Novocure is NOT permitted to provide medical advice to patients.
All patients with medical questions will be referred back to their healthcare provider.

*Specific eligibility criteria apply.

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OPTUNE®
Elevate Expectations

For your next patient with newly diagnosed GBM,

PUT GBM
ON PAUSE.



PUT LIFE
ON PLAY.



Optune® + TMZ has been proven to provide long-term quality survival^{1,2}

Unprecedented long-term survival significantly increased with more time on Optune^{1,12}

- OS was significantly higher at the 2-year landmark analysis and remained higher at 5 years
 - Median OS was significantly extended with Optune—by nearly 5 months ($P < 0.001$)

Patients treated with Optune + TMZ maintained QoL over time and across predefined daily-functioning domains^{2,14}

- Both HCPs and patients reported stable QoL evaluation scores up to 1 year of Optune use, as defined inside

Optune + TMZ have been safely combined for 5 years^{1,9}

- No significant increase in serious AEs compared with TMZ alone
- The most common side effect was mild-to-moderate skin irritation

AEs, adverse events; GBM, glioblastoma; OS, overall survival; QoL, quality of life; TMZ, temozolomide.

Selected safety information

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