



ASK THE EXPERT™

First-Line Treatment of Metastatic Non-small cell Lung Cancer (NSCLC)

Use of first-line (1L) nivolumab in combination with low-dose (1 mg/kg) ipilimumab and limited (2 cycles of platinum-doublet) chemotherapy in certain patients with metastatic NSCLC (mNSCLC) for PD-L1 non-expressors and expressors

FACULTY



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Dr Behl was paid for her contribution to this interview. Please see end for additional industry-related disclosures.

INTRODUCTION

Immune checkpoint inhibitor (ICI) therapies have become an important treatment option in patients with non-small cell lung cancer (NSCLC). However, there are fewer immunology (I-O)-based treatment options for patients with programmed death-ligand 1 (PD-L1) <1% expression.^{1,2}

The Checkmate 9LA trial was a randomized, phase 3, open-label study that evaluated OPDIVO + YERVOY plus 2 cycles of platinum-based chemotherapy compared with 4 cycles of platinum-based chemotherapy alone as first-line therapy in patients with stage IV or recurrent NSCLC, no known sensitizing *EGFR* or *ALK* aberrations, and an Eastern Cooperative Oncology Group performance status of 0 or 1. The trial evaluated patients regardless of programmed death-ligand 1 (PD-L1) expression and histology; 31% of patients enrolled had squamous disease and 69% had nonsquamous disease. Patients were stratified by squamous

(continued on next page)

Summary of Warnings and Precautions:

OPDIVO® (nivolumab) and YERVOY® (ipilimumab) are associated with the following Warnings and Precautions: severe and fatal immune-mediated adverse reactions including pneumonitis, colitis, hepatitis and hepatotoxicity, endocrinopathies, nephritis with renal dysfunction, dermatologic adverse reactions, other immune-mediated adverse reactions; infusion-related reactions; complications of allogeneic hematopoietic stem cell transplantation (HSCT); embryo-fetal toxicity; and increased mortality in patients with multiple myeloma when OPDIVO is added to a thalidomide analogue and dexamethasone, which is not recommended outside of controlled clinical trials.

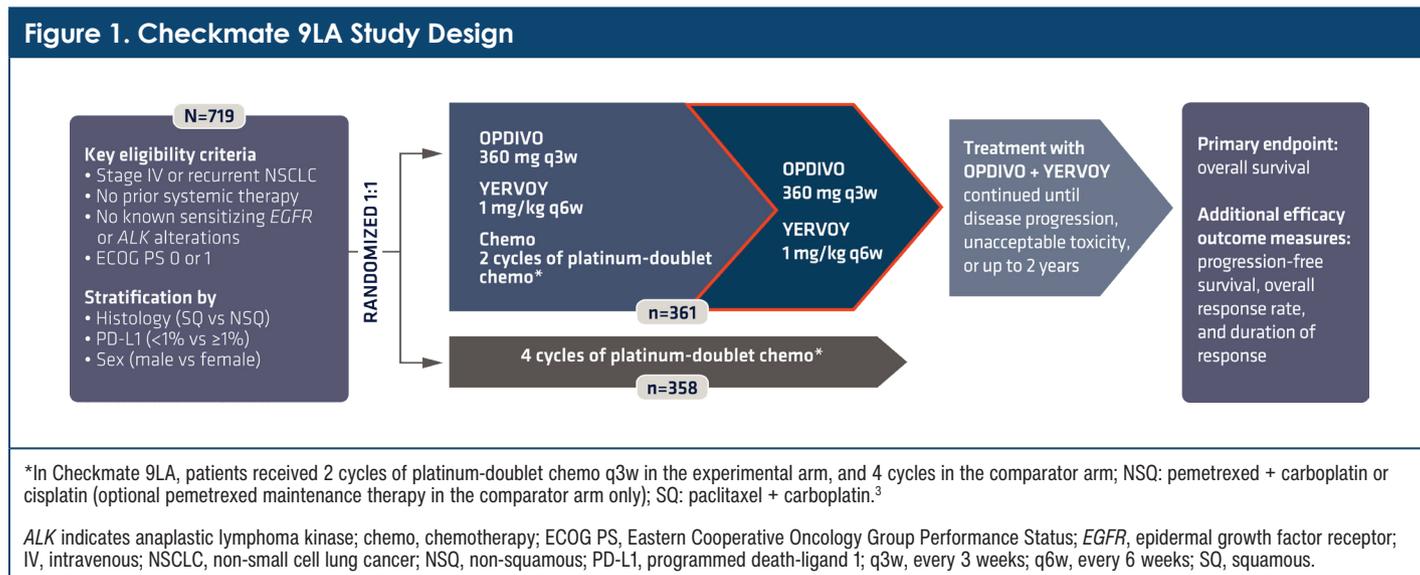
INDICATION

OPDIVO, in combination with YERVOY and 2 cycles of platinum-doublet chemotherapy, is indicated for the first-line treatment of adult patients with metastatic or recurrent NSCLC, with no *EGFR* or *ALK* genomic tumor aberrations.

Please see additional Important Safety Information for OPDIVO and YERVOY throughout and US Full Prescribing Information for [OPDIVO](#) and [YERVOY](#).

versus nonsquamous histology, PD-L1 <1% versus ≥1%, and male versus female sex (see **Figure 1**).³⁻⁵ Patients with untreated brain metastases, carcinomatous meningitis, active autoimmune disease, or medical conditions requiring systemic immunosuppression were excluded.

At the American Society of Clinical Oncology 2022 annual meeting, researchers presented an extended 3-year follow-up analysis of the Checkmate 9LA trial, with a minimum follow-up of 36.1 months.⁶



IMPORTANT SAFETY INFORMATION

Severe and Fatal Immune-Mediated Adverse Reactions

Immune-mediated adverse reactions listed herein may not include all possible severe and fatal immune-mediated adverse reactions.

Immune-mediated adverse reactions, which may be severe or fatal, can occur in any organ system or tissue. While immune-mediated adverse reactions usually manifest during treatment, they can also occur after discontinuation of OPDIVO or YERVOY. Early identification and management are essential to ensure safe use of OPDIVO and YERVOY. Monitor for signs and symptoms that may be clinical manifestations of underlying immune-mediated adverse reactions. Evaluate clinical chemistries including liver enzymes, creatinine, adrenocorticotropic hormone (ACTH) level, and thyroid function at baseline and periodically during treatment with OPDIVO and before each dose of YERVOY. In cases of suspected immune-mediated adverse reactions, initiate appropriate workup to exclude alternative etiologies, including infection. Institute medical management promptly, including specialty consultation as appropriate.

Please see additional Important Safety Information for OPDIVO and YERVOY throughout and US Full Prescribing Information for [OPDIVO](#) and [YERVOY](#).

► INTERVIEW WITH DR BEHL

Q: This is the first FDA-approved regimen that includes 2 immune checkpoint inhibitors (ICIs) in combination with limited chemotherapy. Can you describe the dosing schedule and scientific rationale for OPDIVO + YERVOY and a limited course of platinum-based chemotherapy used in Checkmate 9LA (Figure 2)?^{3,4}

A: In my opinion, the dosing used in Checkmate 9LA is clear with scientific rationale to utilize **2 immunotherapies** in combination with **2 cycles of chemotherapy**. There are 3 distinct reasons that I see for this.

- **Why I-O + chemotherapy?** When there are no driver mutations present, it is standard of care to treat metastatic NSCLC patients with a combination of chemotherapy plus immunotherapy.
- **Why 2 cycles of chemo?** Stopping at only 2 cycles of chemotherapy helps to limit patient exposure to chemotherapy. My patients are also generally more comfortable with the idea of having to do only 2 cycles of chemotherapy.
- **Why 2 immunotherapies?** OPDIVO + YERVOY is a combination of 2 ICIs that work in different but complementary ways. The goal for this dual I-O regimen is the potential for durable survival. OPDIVO at the 360-mg dose is used every 3 weeks in sync with the cadence and dosing of YERVOY (1-mg/kg dose every 6 weeks) as well as the 2 chemotherapy cycles. Patients are subsequently treated with OPDIVO + YERVOY for up to 2 years without chemotherapy.

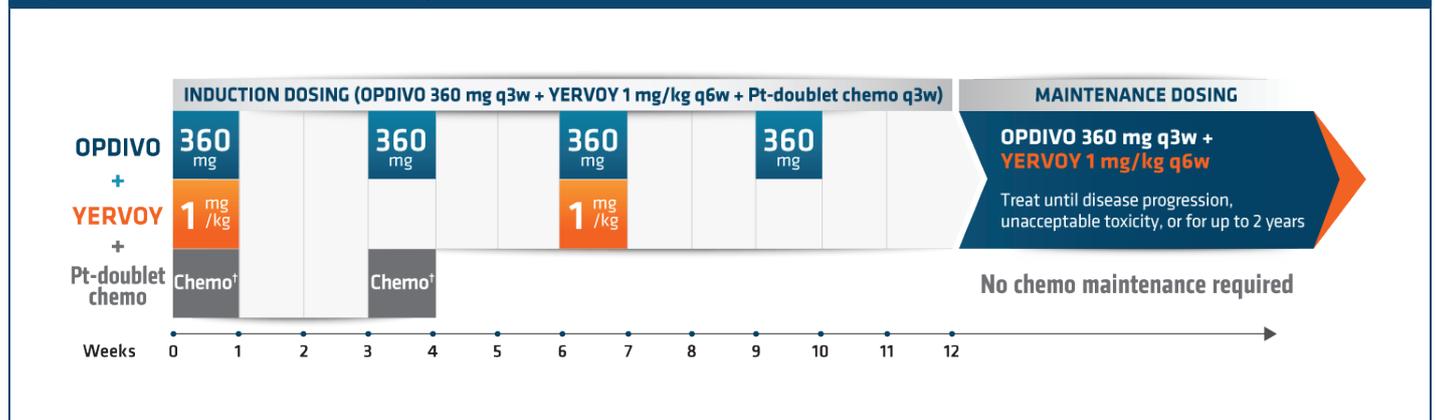
IMPORTANT SAFETY INFORMATION

Severe and Fatal Immune-Mediated Adverse Reactions

Withhold or permanently discontinue OPDIVO and YERVOY depending on severity (please see section 2 Dosage and Administration in the accompanying Full Prescribing Information). In general, if OPDIVO or YERVOY interruption or discontinuation is required, administer systemic corticosteroid therapy (1 to 2 mg/kg/day prednisone or equivalent) until improvement to Grade 1 or less. Upon improvement to Grade 1 or less, initiate corticosteroid taper and continue to taper over at least 1 month. Consider administration of other systemic immunosuppressants in patients whose immune-mediated adverse reactions are not controlled with corticosteroid therapy. Toxicity management guidelines for adverse reactions that do not necessarily require systemic steroids (e.g., endocrinopathies and dermatologic reactions) are discussed below.

Please see additional Important Safety Information for OPDIVO and YERVOY throughout and US Full Prescribing Information for [OPDIVO](#) and [YERVOY](#).

Figure 2. Checkmate 9LA Dosing



[†]Histology-based chemo: squamous patients: carboplatin AUC 6 + paclitaxel 200 mg/m² q3w; non-squamous patients: carboplatin AUC 5 or 6 or cisplatin 75 mg/m² + pemetrexed 500 mg/m² q3w.⁵
 OPDIVO is administered as an IV infusion over 30 minutes.³
 YERVOY is administered as an IV infusion over 30 minutes.⁴

AUC indicates area under the curve; chemo, chemotherapy; IV, intravenous; Pt, platinum; q3w, every 3 weeks; q6w, every 6 weeks.

OPDIVO + YERVOY is a combination of 2 ICIs that work in different but complementary ways. The goal for this dual I-O regimen is the potential for durable survival.

IMPORTANT SAFETY INFORMATION

Severe and Fatal Immune-Mediated Adverse Reactions

Immune-Mediated Pneumonitis

OPDIVO and YERVOY can cause immune-mediated pneumonitis. The incidence of pneumonitis is higher in patients who have received prior thoracic radiation.

Immune-Mediated Colitis

OPDIVO and YERVOY can cause immune-mediated colitis, which may be fatal. A common symptom included in the definition of colitis was diarrhea. Cytomegalovirus (CMV) infection/reactivation has been reported in patients with corticosteroid-refractory immune-mediated colitis. In cases of corticosteroid-refractory colitis, consider repeating infectious workup to exclude alternative etiologies.

Immune-Mediated Hepatitis and Hepatotoxicity

OPDIVO and YERVOY can cause immune-mediated hepatitis.

Please see additional Important Safety Information for OPDIVO and YERVOY throughout and US Full Prescribing Information for [OPDIVO](#) and [YERVOY](#).

Q: In the initial prespecified interim analysis, median overall survival (OS) for the intent-to-treat population was 14.1 months (95% confidence interval [CI], 13.2-16.2) for OPDIVO + YERVOY with limited chemotherapy and 10.7 months (95% CI, 9.5-12.5) with chemotherapy alone (hazard ratio [HR], 0.69; 96.71% CI, 0.55-0.87; $P = .0006$).⁵ At the extended follow-up at a minimum of 24.4 months, 38% of patients treated with OPDIVO + YERVOY with limited chemotherapy were alive and 26% of patients treated with chemotherapy alone were alive (Figure 3).^{3,7}

What is the impact of the extended 3-year follow-up data?

A: With an extended follow-up at a minimum of 36.1 months, median OS was 15.8 months (95% CI, 13.9-19.7) with OPDIVO + YERVOY with limited chemotherapy and 11.0 months (95% CI, 9.5-12.7) with chemotherapy alone; HR = 0.74 (95% CI, 0.62-0.87) (Figure 3). At 3 years, 27% of the patients who were treated with OPDIVO + YERVOY with limited chemotherapy and 19% of those who were treated with chemotherapy alone were alive.⁶

For recurrent/metastatic NSCLC patients in the ITT population, at an extended 3-year follow-up analysis, the data show continued overall survival from OPDIVO + YERVOY plus limited chemotherapy. We observe early separation in the survival curves* and durable survival; at a minimum of 36.1 months of follow-up, 27% of patients treated with OPDIVO + YERVOY with limited chemotherapy were alive and 19% of patients treated with chemotherapy alone were alive. By using this strategy of 2 cycles of chemotherapy plus 2 immunotherapies, we are offering our patients a chance for durable survival.

*Early separation of the curves is observational and not powered to detect differences in the treatment effect.

IMPORTANT SAFETY INFORMATION

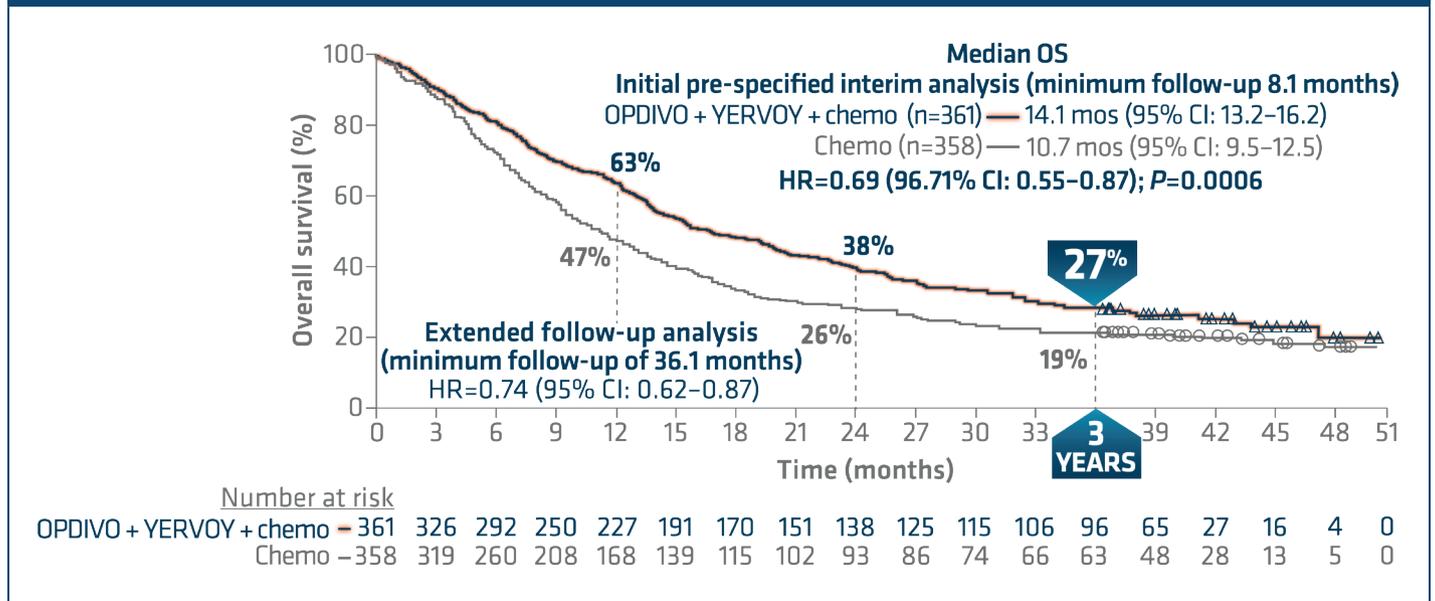
Severe and Fatal Immune-Mediated Adverse Reactions

Immune-Mediated Endocrinopathies

OPDIVO and YERVOY can cause primary or secondary adrenal insufficiency, immune-mediated hypophysitis, immune-mediated thyroid disorders, and Type 1 diabetes mellitus, which can present with diabetic ketoacidosis. Withhold OPDIVO and YERVOY depending on severity (please see section 2 Dosage and Administration in the accompanying Full Prescribing Information). For Grade 2 or higher adrenal insufficiency, initiate symptomatic treatment, including hormone replacement as clinically indicated. Hypophysitis can present with acute symptoms associated with mass effect such as headache, photophobia, or visual field defects. Hypophysitis can cause hypopituitarism; initiate hormone replacement as clinically indicated. Thyroiditis can present with or without endocrinopathy. Hypothyroidism can follow hyperthyroidism; initiate hormone replacement or medical management as clinically indicated. Monitor patients for hyperglycemia or other signs and symptoms of diabetes; initiate treatment with insulin as clinically indicated.

Please see additional Important Safety Information for OPDIVO and YERVOY throughout and US Full Prescribing Information for [OPDIVO](#) and [YERVOY](#).

Figure 3. Checkmate 9LA: Overall Survival at a 3-Year Extended Follow-Up



Early separation of the curves is observational and not powered to detect differences in the treatment effect.⁸
 Minimum follow-up of 36.1 months.⁵

Chemo indicates chemotherapy; CI, confidence interval; HR, hazard ratio; mos, months; OS, overall survival.

IMPORTANT SAFETY INFORMATION

Severe and Fatal Immune-Mediated Adverse Reactions

Immune-Mediated Nephritis with Renal Dysfunction

OPDIVO and YERVOY can cause immune-mediated nephritis.

Immune-Mediated Dermatologic Adverse Reactions

OPDIVO can cause immune-mediated rash or dermatitis. Exfoliative dermatitis, including Stevens-Johnson syndrome (SJS), toxic epidermal necrolysis (TEN), and drug rash with eosinophilia and systemic symptoms (DRESS) has occurred with PD-1/PD-L1 blocking antibodies. Topical emollients and/or topical corticosteroids may be adequate to treat mild to moderate nonexfoliative rashes.

Please see additional Important Safety Information for OPDIVO and YERVOY throughout and US Full Prescribing Information for [OPDIVO](#) and [YERVOY](#).

Q: In Checkmate 9LA, PD-L1 expression of <1% and ≥1% was a stratification factor (Figure 4).⁷ What is your interpretation of these results?

Limitation: The study was not powered to detect differences in the treatment effect in these subgroups, and results from this exploratory analysis should be interpreted with caution because of limited patient numbers and potential imbalances in baseline characteristics within the subgroups.

A: Overall, there was consistent OS benefit across the PD-L1 <1% and PD-L1 ≥1% subgroups with OPDIVO + YERVOY plus 2 cycles of chemo versus chemo alone at a minimum follow-up of 36.1 months. These data are meaningful because for the approximately 35% of patients with PD-L1 <1% this regimen is an option. With this dual I-O–based regimen, patients with PD-L1 <1% showed results similar to the PD-L1–positive patients in terms of OS in the Checkmate 9LA trial.

- 25% of patients with PD-L1 <1% treated with OPDIVO + YERVOY with limited chemo and 15% of those treated with chemotherapy alone were alive at 3 years (HR, 0.67; 95% CI, 0.51-0.88).
 - At the 36.1-month minimum follow-up, median OS for PD-L1 <1% was 17.7 months (95% CI, 13.7-20.3) with OPDIVO + YERVOY with chemo and 9.8 months (95% CI, 7.7-13.5) with chemo alone (HR, 0.67; 95% CI, 0.51-0.88).
- 28% of patients with PD-L1 ≥1% treated with OPDIVO + YERVOY with limited chemo and 19% of those treated with chemo alone were alive at 3 years (HR, 0.74; 95% CI, 0.60-0.93).
 - At the 36.1-month minimum follow-up, median OS for PD-L1 ≥1% was 15.8 months (95% CI, 13.8-22.2) with OPDIVO + YERVOY with chemo and 10.9 months (95% CI, 9.5-13.2) with chemo alone (HR, 0.74; 95% CI, 0.60-0.93).

With this dual I-O–based regimen, patients with PD-L1 <1% showed results similar to the PD-L1–positive patients in terms of OS in the Checkmate 9LA trial.

IMPORTANT SAFETY INFORMATION

Severe and Fatal Immune-Mediated Adverse Reactions

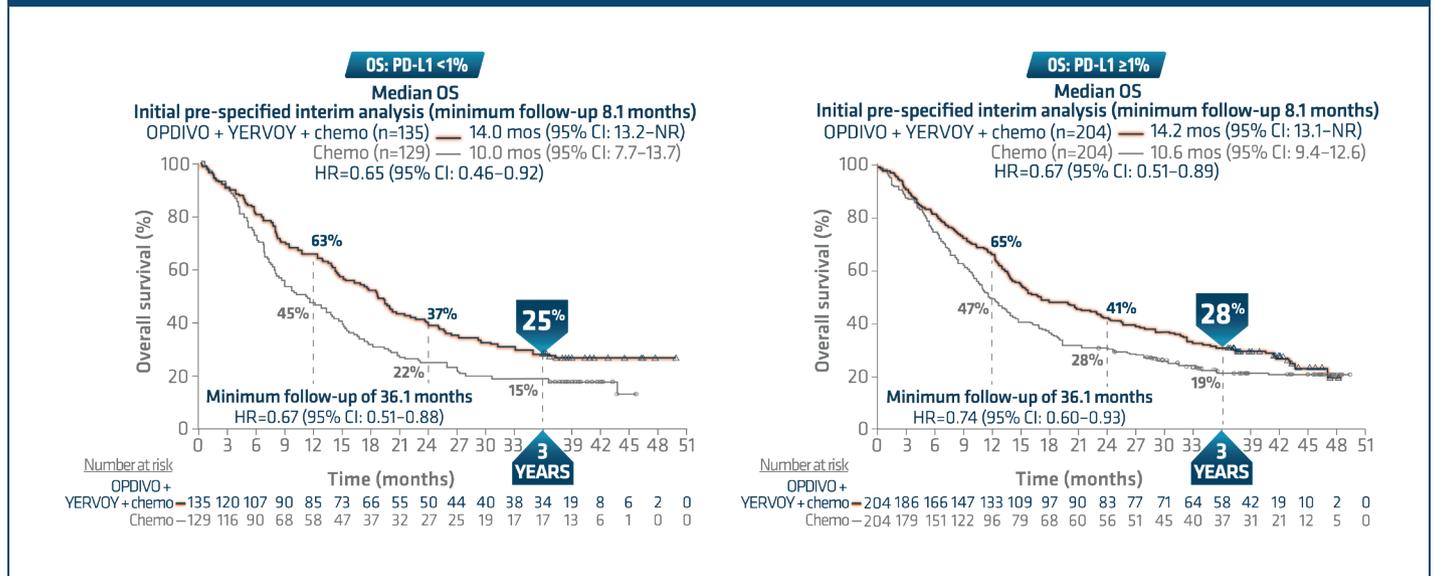
Immune-Mediated Dermatologic Adverse Reactions (continued)

YERVOY can cause immune-mediated rash or dermatitis, including bullous and exfoliative dermatitis, SJS, TEN, and DRESS. Topical emollients and/or topical corticosteroids may be adequate to treat mild to moderate non-bullous/exfoliative rashes.

Withhold or permanently discontinue OPDIVO and YERVOY depending on severity (please see section 2 Dosage and Administration in the accompanying Full Prescribing Information).

Please see additional Important Safety Information for OPDIVO and YERVOY throughout and US Full Prescribing Information for [OPDIVO](#) and [YERVOY](#).

Figure 4. Checkmate 9LA: Overall Survival Across PD-L1 <1% and PD-L1 ≥1% (Extended Follow-Up Analysis)



Minimum follow-up of 36.1 months.⁶

Chemo indicates chemotherapy; CI, confidence interval; HR, hazard ratio; mos, months; NR, not reached; OS, overall survival; PD-L1, programmed death-ligand 1.

IMPORTANT SAFETY INFORMATION

Severe and Fatal Immune-Mediated Adverse Reactions

Other Immune-Mediated Adverse Reactions

The following clinically significant immune-mediated adverse reactions occurred at an incidence of <1% (unless otherwise noted) in patients who received OPDIVO monotherapy or OPDIVO in combination with YERVOY or were reported with the use of other PD-1/PD-L1 blocking antibodies. Severe or fatal cases have been reported for some of these adverse reactions: *cardiac/vascular*: myocarditis, pericarditis, vasculitis; *nervous system*: meningitis, encephalitis, myelitis and demyelination, myasthenic syndrome/myasthenia gravis (including exacerbation), Guillain-Barré syndrome, nerve paresis, autoimmune neuropathy; *ocular*: uveitis, iritis, and other ocular inflammatory toxicities can occur; *gastrointestinal*: pancreatitis to include increases in serum amylase and lipase levels, gastritis, duodenitis; *musculoskeletal and connective tissue*: myositis/polymyositis, rhabdomyolysis, and associated sequelae including renal failure, arthritis, polymyalgia rheumatica; *endocrine*: hypoparathyroidism; *other (hematologic/immune)*: hemolytic anemia, aplastic anemia, hemophagocytic lymphohistiocytosis (HLH), systemic inflammatory response syndrome, histiocytic necrotizing lymphadenitis (Kikuchi lymphadenitis), sarcoidosis, immune thrombocytopenic purpura, solid organ transplant rejection.

Please see additional Important Safety Information for OPDIVO and YERVOY throughout and US Full Prescribing Information for [OPDIVO](#) and [YERVOY](#).

Q: What has been your experience with adverse reactions in patients with recurrent/metastatic NSCLC receiving first-line therapy with OPDIVO + YERVOY with limited chemotherapy? How would you counsel your patients who receive OPDIVO + YERVOY with limited chemotherapy regarding immune-related adverse events?

A: My experience with OPDIVO + YERVOY and 2 cycles of chemo has been consistent with the data from Checkmate 9LA.³

In Checkmate 9LA (**Table**)³:

- Treatment was permanently discontinued for adverse reactions in 24% of patients treated with OPDIVO + YERVOY with chemo, and 56% had at least 1 dose withheld for an adverse reaction.
- Serious adverse reactions occurred in 57% of patients receiving OPDIVO + YERVOY with chemo.
- The most frequent (>2%) serious adverse reactions were pneumonia, diarrhea, febrile neutropenia, anemia, acute kidney injury, musculoskeletal pain, dyspnea, pneumonitis, and respiratory failure. Fatal adverse reactions occurred in 7 (2%) patients, and included hepatic toxicity, acute renal failure, sepsis, pneumonitis, diarrhea with hypokalemia, and massive hemoptysis in the setting of thrombocytopenia.
- The most common (>20%) adverse reactions were fatigue, musculoskeletal pain, nausea, diarrhea, rash, decreased appetite, constipation, and pruritus.
- The median number of doses was 9 OPDIVO, 4 YERVOY, and 2 cycles of chemo.
- With a minimum follow-up of 36.1 months, no new safety signals were identified for OPDIVO + YERVOY with limited chemo.

IMPORTANT SAFETY INFORMATION

Severe and Fatal Immune-Mediated Adverse Reactions

Other Immune-Mediated Adverse Reactions (continued)

In addition to the immune-mediated adverse reactions listed above, across clinical trials of YERVOY monotherapy or in combination with OPDIVO, the following clinically significant immune-mediated adverse reactions, some with fatal outcome, occurred in <1% of patients unless otherwise specified: *nervous system*: autoimmune neuropathy (2%), myasthenic syndrome/myasthenia gravis, motor dysfunction; *cardiovascular*: angiopathy, temporal arteritis; *ocular*: blepharitis, episcleritis, orbital myositis, scleritis; *gastrointestinal*: pancreatitis (1.3%); *other (hematologic/immune)*: conjunctivitis, cytopenias (2.5%), eosinophilia (2.1%), erythema multiforme, hypersensitivity vasculitis, neurosensory hypoacusis, psoriasis.

Some ocular IMAR cases can be associated with retinal detachment. Various grades of visual impairment, including blindness, can occur. If uveitis occurs in combination with other immune-mediated adverse reactions, consider a Vogt-Koyanagi-Harada-like syndrome, which has been observed in patients receiving YERVOY, as this may require treatment with systemic corticosteroids to reduce the risk of permanent vision loss.

Please see additional Important Safety Information for OPDIVO and YERVOY throughout and US Full Prescribing Information for [OPDIVO](#) and [YERVOY](#).

YERVOY was the first immunotherapy that came out in 2011, so we have had over a decade of learnings on how to manage immunotherapies, particularly immune-related adverse events. I think one very important point that has only reinforced itself for me over the years is educating our patients about side effects that can happen and the importance of contacting us, their care team, so we can help them manage those side effects.

I'm also fortunate to have a nurse navigator who is invaluable in this situation because she is the point person who sees all the patients I see. She talks to them and provides education to each patient individually. She is well-versed in side effects that can happen and gives patients advice in real time. It's important to make sure that your nurses and clinical staff are very familiar with immune-related side effects and can guide patients. A small percentage of patients will experience more severe side effects, and that is where it becomes very important to partner with our expert colleagues and build strong multidisciplinary teams.

In my own clinical experience, no new safety signals were observed in patients treated with OPDIVO + YERVOY with limited chemotherapy (Table).

YERVOY was the first immunotherapy that came out in 2011, so we have had more than a decade of learnings on how to manage adverse events associated with immunotherapy.

IMPORTANT SAFETY INFORMATION

Infusion-Related Reactions

OPDIVO and YERVOY can cause severe infusion-related reactions. Discontinue OPDIVO and YERVOY in patients with severe (Grade 3) or life-threatening (Grade 4) infusion-related reactions. Interrupt or slow the rate of infusion in patients with mild (Grade 1) or moderate (Grade 2) infusion-related reactions.

Complications of Allogeneic Hematopoietic Stem Cell Transplantation

Fatal and other serious complications can occur in patients who receive allogeneic hematopoietic stem cell transplantation (HSCT) before or after being treated with OPDIVO or YERVOY. Transplant-related complications include hyperacute graft-versus-host disease (GVHD), acute GVHD, chronic GVHD, hepatic veno-occlusive disease (VOD) after reduced intensity conditioning, and steroid-requiring febrile syndrome (without an identified infectious cause). These complications may occur despite intervening therapy between OPDIVO or YERVOY and allogeneic HSCT.

Follow patients closely for evidence of transplant-related complications and intervene promptly. Consider the benefit versus risks of treatment with OPDIVO and YERVOY prior to or after an allogeneic HSCT.

Please see additional Important Safety Information for OPDIVO and YERVOY throughout and US Full Prescribing Information for [OPDIVO](#) and [YERVOY](#).

FIRST-LINE TREATMENT OF METASTATIC NSCLC

Table. Checkmate 9LA adverse reactions in ≥10% of patients receiving OPDIVO + YERVOY with limited chemotherapy^{5*}

Adverse reactions	OPDIVO + YERVOY + chemo (n=358)		Chemo ^{III} (n=349)	
	All grades (%)	Grades 3-4 (%)	All grades (%)	Grades 3-4 (%)
General				
Fatigue [†]	49	5	40	4.9
Pyrexia	14	0.6	10	0.6
Musculoskeletal and connective tissue				
Musculoskeletal pain [‡]	39	4.5	27	2.0
Gastrointestinal				
Nausea	32	1.7	41	0.9
Diarrhea [§]	31	6	18	1.7
Constipation	21	0.6	23	0.6
Vomiting	18	2.0	17	1.4
Abdominal pain	12	0.6	11	0.9
Skin and subcutaneous tissue				
Rash [¶]	30	4.7	10	0.3
Pruritus [#]	21	0.8	2.9	0
Alopecia	11	0.8	10	0.6
Metabolism and nutrition				
Decreased appetite	28	2.0	22	1.7
Respiratory, thoracic, and mediastinal				
Cough ^{**}	19	0.6	15	0.9
Dyspnea ^{††}	18	4.7	14	3.2
Endocrine				
Hypothyroidism ^{‡‡}	19	0.3	3.4	0
Nervous system				
Headaches	11	0.6	7	0
Dizziness ^{§§}	11	0.6	6	0

Toxicity was graded per NCI CTCAE v4.⁵

*Two cycles of platinum-doublet chemo.

[†]Includes fatigue and asthenia.

[‡]Includes myalgia, back pain, pain in extremity, musculoskeletal pain, bone pain, flank pain, muscle spasms, musculoskeletal chest pain, musculoskeletal disorder, osteitis, musculoskeletal stiffness, non-cardiac chest pain, arthralgia, arthritis, arthropathy, joint effusion, psoriatic arthropathy, synovitis.

[§]Includes colitis, ulcerative colitis, diarrhea, and enterocolitis.

^{||}Includes abdominal discomfort, abdominal pain, lower abdominal pain, upper abdominal pain, and gastrointestinal pain.

[¶]Includes acne, dermatitis, acneiform dermatitis, allergic dermatitis, atopic dermatitis, bullous dermatitis, generalized exfoliative dermatitis, eczema, keratoderma blenorrhagica, palmar-plantar erythrodysesthesia syndrome, rash, erythematous rash, generalized rash, macular rash, maculo-papular rash, morbilliform rash, papular rash, pruritic rash, skin exfoliation, skin reaction, skin toxicity, Stevens-Johnson syndrome, urticaria.

[#]Includes pruritus and generalized pruritus.

^{**}Includes cough, productive cough, and upper-airway cough syndrome.

^{††}Includes dyspnea, dyspnea at rest, and exertional dyspnea.

^{‡‡}Includes autoimmune thyroiditis, increased blood thyroid stimulating hormone, hypothyroidism, thyroiditis, and decreased free tri-iodothyronine.

^{§§}Includes dizziness, vertigo, and positional vertigo.

^{||}In Checkmate 9LA, patients in the comparator arm received 4 cycles of platinum-doublet chemo q3w; non-squamous: pemetrexed + carboplatin or cisplatin, with optional pemetrexed maintenance therapy; squamous: paclitaxel + carboplatin.

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Q: What is your advice for community healthcare providers on using OPDIVO + YERVOY with limited chemotherapy as first-line therapy for their patients with recurrent or metastatic NSCLC?

A: First, OPDIVO + YERVOY and limited chemo is a regimen that should be considered as first-line treatment for your patients with metastatic NSCLC. Now, with 3 years of data, a durable survival benefit has been observed with OPDIVO + YERVOY and 2 cycles of chemo compared with chemo alone regardless of PD-L1 expression level.

I would want to emphasize that the benefit was seen across all PD-L1 levels, so patients with PD-L1 <1% may also benefit from this regimen.

One concern that comes up with utilizing dual ICI blockade relates to immune-related adverse events and the potential toxicity to patients. There were no new safety signals noted with the combination. We have used chemotherapy. We have used immunotherapy. The adverse event profile with OPDIVO + YERVOY is understood, and we can try to work with patients on adverse events using management guidelines that have been developed.

IMPORTANT SAFETY INFORMATION

Embryo-Fetal Toxicity

Based on its mechanism of action and findings from animal studies, OPDIVO and YERVOY can cause fetal harm when administered to a pregnant woman. The effects of YERVOY are likely to be greater during the second and third trimesters of pregnancy. Advise pregnant women of the potential risk to a fetus. Advise females of reproductive potential to use effective contraception during treatment with OPDIVO and YERVOY and for at least 5 months after the last dose.

Increased Mortality in Patients with Multiple Myeloma when OPDIVO is Added to a Thalidomide Analogue and Dexamethasone

In randomized clinical trials in patients with multiple myeloma, the addition of OPDIVO to a thalidomide analogue plus dexamethasone resulted in increased mortality. Treatment of patients with multiple myeloma with a PD-1 or PD-L1 blocking antibody in combination with a thalidomide analogue plus dexamethasone is not recommended outside of controlled clinical trials.

Lactation

There are no data on the presence of OPDIVO or YERVOY in human milk, the effects on the breastfed child, or the effects on milk production. Because of the potential for serious adverse reactions in breastfed children, advise women not to breastfeed during treatment and for 5 months after the last dose.

Please see additional Important Safety Information for OPDIVO and YERVOY throughout and US Full Prescribing Information for [OPDIVO](#) and [YERVOY](#).

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Q: Based on these data, what do you feel is the role for OPDIVO + YERVOY with limited chemotherapy in the first-line treatment of patients with metastatic NSCLC?

A: For me, I think that patients who have multiple sites of disease and are PD-L1–negative are candidates for this regimen. We observe early separation in the survival curves* and durable survival with the Checkmate 9LA regimen at 3 years, where 27% of patients treated with OPDIVO + YERVOY with limited chemotherapy were alive and 19% of patients treated with chemotherapy alone were alive at this time point.

Importantly, 25% of patients with PD-L1 <1% treated with OPDIVO + YERVOY with limited chemo and 15% of those treated with chemotherapy alone were alive at 3 years, and 28% of patients with PD-L1 ≥1% treated with OPDIVO + YERVOY with limited chemo and 19% of those treated with chemo alone were alive at 3 years. For these reasons, this dual I-O approach with OPDIVO + YERVOY and 2 cycles of chemotherapy is an option that offers durable survival for patients with recurrent/metastatic NSCLC regardless of PD-L1 and this is my go-to option for PD-L1 <1% patients.

Moreover, this regimen benefits patients with squamous and nonsquamous histology, so all patients are eligible regardless of histology.⁹

*Early separation of the curves is observational and not powered to detect differences in the treatment effect.

This dual I-O approach with OPDIVO + YERVOY and 2 cycles of chemotherapy is an option that offers durable survival for patients with recurrent/metastatic NSCLC regardless of PD-L1 and this is my go-to option for PD-L1 <1% patients.

IMPORTANT SAFETY INFORMATION

Serious Adverse Reactions

In Checkmate 9LA, serious adverse reactions occurred in 57% of patients (n=358). The most frequent (>2%) serious adverse reactions were pneumonia, diarrhea, febrile neutropenia, anemia, acute kidney injury, musculoskeletal pain, dyspnea, pneumonitis, and respiratory failure. Fatal adverse reactions occurred in 7 (2%) patients, and included hepatic toxicity, acute renal failure, sepsis, pneumonitis, diarrhea with hypokalemia, and massive hemoptysis in the setting of thrombocytopenia.

Common Adverse Reactions

In Checkmate 9LA, the most common (>20%) adverse reactions were fatigue (49%), musculoskeletal pain (39%), nausea (32%), diarrhea (31%), rash (30%), decreased appetite (28%), constipation (21%), and pruritus (21%).

Please see additional Important Safety Information for OPDIVO and YERVOY throughout and US Full Prescribing Information for [OPDIVO](#) and [YERVOY](#).

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Checkmate Trials and Patient Populations

Checkmate 9LA—previously untreated recurrent or metastatic non-small cell lung cancer in combination with YERVOY and 2 cycles of platinum-doublet chemotherapy by histology.

Please see additional Important Safety Information for OPDIVO and YERVOY throughout and US Full Prescribing Information for [OPDIVO](#) and [YERVOY](#).

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About the Expert



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Deepti Behl, MD, is a medical oncologist and medical director of the lung cancer program at Sutter Medical Center, Sacramento, CA. She is currently a member of the tobacco cessation committee of the International Association for the Study of Lung Cancer. She is also the medical director for the Sutter Institute for Medical Research in Sacramento, and Chair of the Sutter Melanoma Program of Distinction.

Dr Behl completed her residency and fellowship training in hematology and oncology at the Mayo Clinic, Rochester, MN. Her medical school was Christian Medical College, Ludhiana, India. She is board-certified in medical oncology and focuses on lung cancer and melanoma.

Dr Behl is a member of the American Society of Clinical Oncology, Society for Immunotherapy of Cancer, European Society for Medical Oncology, International Association for the Study of Lung Cancer, and Society for Integrative Oncology.

Dr Behl was paid to share her perspective in this interview.



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