

# **Dose-Adjusted EPOCH-R Compared With R-CHOP as Frontline Therapy for Diffuse Large B-Cell Lymphoma (CALGB50303)**

# Summary

This collection contains data from the [National Cancer Institute Clinical Trial NCT00118209](#), "Rituximab and Combination Chemotherapy in Treating Patients With Diffuse Large B-Cell Non-Hodgkin's Lymphoma." It was sponsored by NCI's Alliance for Clinical Trials in Oncology under study number CALGB 50303. This randomized phase III trial is studying rituximab when given together with two different combination chemotherapy regimens to compare how well they work in treating patients with diffuse large B-cell lymphoma. Select individual patient-level data from this trial can be requested from the NCTN/NCORP Data Archive.



## Trial Description

This randomized phase III trial studies rituximab when given together with two different combination chemotherapy regimens to compare how well they work in treating patients with diffuse large B-cell non-Hodgkin's lymphoma. Monoclonal antibodies, such as rituximab, may block cancer growth in different ways by targeting certain cells. Drugs used in chemotherapy work in different ways to stop the growth of cancer cells, either by killing the cells, by stopping them from dividing, or by stopping them from spreading. Giving rituximab together with combination chemotherapy may kill more cancer cells. It is not yet known which combination chemotherapy regimen is more effective when given with rituximab in treating diffuse large B-cell non-Hodgkin's lymphoma.

Alliance/CALGB 50303 ([NCT00118209](#)), an intergroup, phase III study, compared dose-adjusted etoposide, prednisone, vincristine, cyclophosphamide, doxorubicin, and rituximab (DA-EPOCH-R) with standard rituximab, cyclophosphamide, doxorubicin, vincristine, and prednisone (R-CHOP) as frontline therapy for diffuse large B-cell lymphoma. Patients received six cycles of DA-EPOCH-R or R-CHOP. The primary objective was progression-free survival (PFS); secondary clinical objectives included response rate, overall survival (OS), and safety. Between 2005 and 2013, 524 patients were registered; 491 eligible patients were included in the final analysis. Most patients (74%) had stage III or IV disease; International Prognostic Index (IPI) risk groups included 26% IPI 0 to 1, 37% IPI 2, 25% IPI 3, and 12% IPI 4 to 5. At a median follow-up of 5 years, PFS was not statistically different between the arms (hazard ratio, 0.93; 95% CI, 0.68 to 1.27;  $P = .65$ ), with a 2-year PFS rate of 78.9% (95% CI, 73.8% to 84.2%) for DA-EPOCH-R and 75.5% (95% CI, 70.2% to 81.1%) for R-CHOP. OS was not different (hazard ratio, 1.09; 95% CI, 0.75 to 1.59;  $P = .64$ ), with a 2-year OS rate of 86.5% (95% CI, 82.3% to 91%) for DA-EPOCH-R and 85.7% (95% CI, 81.4% to 90.2%) for R-CHOP. Grade 3 and 4 adverse events were more common ( $P < .001$ ) in the DA-EPOCH-R arm than the R-CHOP arm, including infection (16.9% v 10.7%, respectively), febrile neutropenia (35.0% v 17.7%, respectively), mucositis (8.4% v 2.1%, respectively), and neuropathy (18.6% v 3.3%, respectively). Five treatment-related deaths (2.1%) occurred in each arm.

CT/MRI scans of the chest, abdomen and pelvis were utilized for tumor staging for 155 of these patients. Serial fluorodeoxyglucose positron emission tomography (FDG-PET) was conducted at baseline, after 2 cycles of chemotherapy (interim PET [i-PET]), and at end of treatment (EoT) to identify biomarkers of response that are predictive of remission and survival.

## Trial Outcomes

Results of the trial have been reported in the following publications:

1. Schöder, H., Polley, M.-Y. C., Knopp, M. V., Hall, N., Kostakoglu, L., Zhang, J., Higley, H. R., Kelloff, G., Liu, H., Zelenetz, A. D., Cheson, B. D., Wagner-Johnston, N., Kahl, B. S., Friedberg, J. W., Hsi, E. D., Leonard, J. P., Schwartz, L. H., Wilson, W. H., & Bartlett, N. L. (2020). Prognostic value of interim FDG-PET in diffuse large

cell lymphoma: results from the CALGB 50303 Clinical Trial. *Blood*, 135(25), 2224–2234. <https://doi.org/10.1182/blood.2019003277>. PMID: 32232481; PMCID: PMC7316220.

- Bartlett, N. L., Wilson, W. H., Jung, S.-H., Hsi, E. D., Maurer, M. J., Pederson, L. D., Polley, M.-Y. C., Pitcher, B. N., Cheson, B. D., Kahl, B. S., Friedberg, J. W., Staudt, L. M., Wagner-Johnston, N. D., Blum, K. A., Abramson, J. S., Reddy, N. M., Winter, J. N., Chang, J. E., Gopal, A. K., ... Leonard, J. P. (2019). Dose-Adjusted EPOCH-R Compared With R-CHOP as Frontline Therapy for Diffuse Large B-Cell Lymphoma: Clinical Outcomes of the Phase III Intergroup Trial Alliance/CALGB 50303. *Journal of Clinical Oncology*, 37(21), 1790–1799. DOI: <https://doi.org/10.1200/jco.18.01994>. Epub 2019 Apr 2. PMID: 30939090; PMCID: PMC6774813.

### **Data Access**

## **Data Access**

This is a **limited access** data set. To request access please register an account on the [NCTN Data Archive](#). After logging in, use the "Request Data" link in the left side menu. Follow the on screen instructions, and enter **NCT00118209** when asked which trial you want to request. In step 2 of the Create Request form, be sure to select "Imaging Data Requested". Please contact [NCINCTNDataArchive@mail.nih.gov](mailto:NCINCTNDataArchive@mail.nih.gov) for any questions about access requests.

<b>Data Type</b>	<b>Download all or Query/Filter</b>
Images (DICOM, 127 GB)	<a href="#">Download Search</a>  (Download requires the <a href="#">NBIA Data Retriever</a> )
Clinical data (CSV, External)	<a href="#">Download</a>

Click the Versions tab for more info about data releases.

Please contact [help@cancerimagingarchive.net](mailto:help@cancerimagingarchive.net) with any questions regarding usage.

### **Detailed Description**

## **Detailed Description**

<b>Image Statistics</b>	
Modalities	CT, PT, OT
Number of Patients	155
Number of Studies	610
Number of Series	1944
Number of Images	509924
Images Size (GB)	136.2

### **Citations & Data Usage Policy**

## Citations & Data Usage Policy

This is a **limited access** data set. Upon receiving access you may only use it for the purposes outlined in your request to the the [NCTN Data Archive](#). You are not allowed to redistribute the data or use it for other purposes. See TCIA's [Data Usage Policies and Restrictions](#) for additional details. Questions may be directed to [help@cancerimagingarchive.net](mailto:help@cancerimagingarchive.net). Users of this data must abide by the [TCIA Data Usage Policy](#) and the [Creative Commons Attribution 4.0 International License](#) under which it has been published. Attribution should include references to the following citations:

### Data Citation

Bartlett, N. L., Wilson, W. H., Jung, S.-H., Hsi, E. D., Maurer, M. J., Pederson, L. D., Polley, M.-Y. C., Pitcher, B. N., Cheson, B. D., Kahl, B. S., Friedberg, J. W., Staudt, L. M., Wagner-Johnston, N. D., Blum, K. A., Abramson, J. S., Reddy, N. M., Winter, J. N., Chang, J. E., Gopal, A. K., ... Leonard, J. P. (2020). Dose-Adjusted EPOCH-R Compared With R-CHOP as Frontline Therapy for Diffuse Large B-Cell Lymphoma (CALGB50303) [Data set]. The Cancer Imaging Archive. <https://doi.org/10.7937/CM65-A013>

### Publication Citation

Bartlett, N. L., Wilson, W. H., Jung, S.-H., Hsi, E. D., Maurer, M. J., Pederson, L. D., Polley, M.-Y. C., Pitcher, B. N., Cheson, B. D., Kahl, B. S., Friedberg, J. W., Staudt, L. M., Wagner-Johnston, N. D., Blum, K. A., Abramson, J. S., Reddy, N. M., Winter, J. N., Chang, J. E., Gopal, A. K., ... Leonard, J. P. (2019). Dose-Adjusted EPOCH-R Compared With R-CHOP as Frontline Therapy for Diffuse Large B-Cell Lymphoma: Clinical Outcomes of the Phase III Intergroup Trial Alliance/CALGB 50303. *Journal of Clinical Oncology*, 37 (21), 1790–1799. <https://doi.org/10.1200/jco.18.01994>

### TCIA Citation

Clark K, Vendt B, Smith K, Freymann J, Kirby J, Koppel P, Moore S, Phillips S, Maffitt D, Pringle M, Tarbox L, Prior F. **The Cancer Imaging Archive (TCIA): Maintaining and Operating a Public Information Repository**, *Journal of Digital Imaging*, Volume 26, Number 6, December, 2013, pp 1045-1057. DOI: [10.1007/s10278-013-9622-7](https://doi.org/10.1007/s10278-013-9622-7)

## Other Publications Using This Data

TCIA maintains [a list of publications](#) which leverage TCIA data. If you have a manuscript you'd like to add please [contact the TCIA Helpdesk](#).

### Versions

#### **Version 1 (Current): Updated 2021/03/30**

Data Type	Download all or Query/Filter
Images (DICOM, 127 GB)	<a href="#">Download</a> <a href="#">Search</a>  (Download requires the <a href="#">NBIA Data Retriever</a> )
Clinical data (CSV, External)	<a href="#">Download</a>