#### Dose-adjusted EPOCH regimen as first-line treatment for non-Hodgkin lymphoma-associated hemophagocytic lymphohistiocytosis: a single-arm, open-label, phase II trial

Jin-Hua Liang,1\* Li Wang,1\* Hua-Yuan Zhu,\*1 Jun Qian,2 Hui Liao,3 Jia-Zhu Wu,1 Yi Xia,1 Wei Wu,1 Lei Cao,1 Lei Fan,1 Jian-Yong Li1 and Wei Xu1

\*J-HL, LW and H-YZ contributed equally to this work.

<sup>1</sup>Department of Hematology, the First Affiliated Hospital of Nanjing Medical University, Jiangsu Province Hospital; Key Laboratory of Hematology of Nanjing Medical University; Collaborative Innovation Center for Cancer Personalized Medicine, Nanjing; <sup>2</sup>Department of Hematology, Affiliated People's Hospital of Jiangsu University, Zhenjiang, Jiangsu and <sup>3</sup>Department of Hematology, Air Force Hospital of Eastern Theater Command, Nanjing, Jiangsu, China

Correspondence: WEI XU. JIAN-YONG LI - xuwei10000@hotmail.com/lijianyonglm@126.com

doi:10.3324/haematol.2019.220301

**Table S1**. The eligible and exclusionary criteria:

### Patients were eligible if:

(1) they were histologically confirmed NHL;

(2) patients whose clinical findings satisfy HLH 2004 standard [1];

(3) newly-diagnosed and untreated;

(4) understand and voluntarily sign an informed consent form, able to adhere

to the study visit schedule and other protocol requirements;

## Exclusion criteria were:

(1) primary HLH;

(2) HLH from rheumatic disorder (such as systemic Lupus Erythematosus,

adult onset still disease, antiphospholipid antibody syndrome);

(3) pregnancy (as determined by serum or urine test) or active breast feeding;

- (4) concomitant malignancy other than NHL and need to treat;
- (5) concomitant with other hematologic diseases (such as leukemia,

hemophilia primary myelofibrosis) which investigators considered it unsuitable

to be enrolled into this clinical trial;

(6) any potential drug abuse, medical, psychological or social conditions which

may disturb this investigation and assessment;

(7) in any conditions which investigator considered ineligible for this study.

[1] HLH 2004 standard.

# At least 5 criteria out of the following:

(4) Fever  $\geq$  38.5 °C for  $\geq$  7 days;

(5) hepatosplenomegaly;

(6) Cytopenias affecting  $\geq 2$  of 3 lineages in peripheral blood:

Hb<90g/L, Platelet<100x10<sup>9</sup>/L, ANC<1.0 x 10<sup>9</sup>/L;

(7) Hypertriglyceridemia and/or hypofibrinogenemia:

fasting triglycerides ≥265 mg/dL, fibrinogen ≤1.5 g/L;

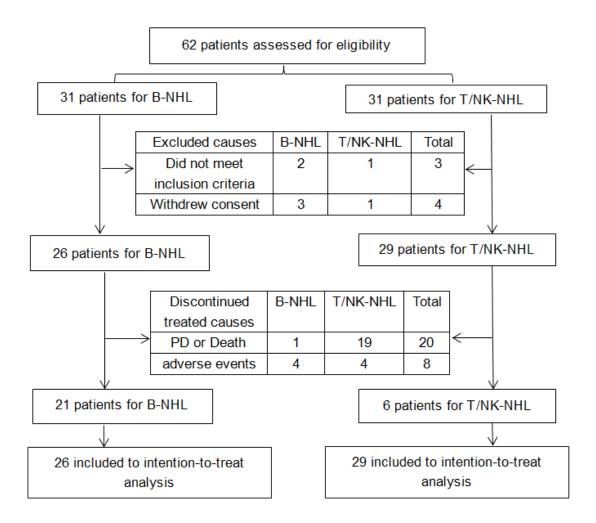
(8) Hemophagocytosis in bone marrow or spleen or lymph nodal;

(9) Low or absent NK-cell activity (according to local laboratory reference);

(10) Serum-ferritin ≥500 ug/L ;

(11) Soluble CD25 (sIL-2 receptor) ≥2,400 U/mL ;

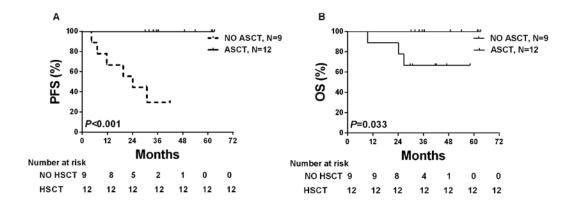
Abreviations: ANC=absolute neutrophil count; Hb=hemoglobin; HLH=hemophagocytic lymphohistiocytosis; NHL=non-Hodgkin's lymphoma; NK=natural killer; PD=progressive disease.



## Figure S1.Trial profile

Abreviations: HLH=hemophagocytic lymphohistiocytosis; NHL=non-Hodgkin's lymphoma;

NK=natural killer; PD=progressive disease.



**Figure S2**. Progression-free survival (A) and overall survival (B) for the 21 patients who achieved ≥PR receive with or without ASCT Abreviations: SCT= stem cell transplantation; CR/CRu=complete response/completed

response unconfirmed; OS=overall survival; PFS=progression-free survival; PR=partial response; NHL=non-Hodgkin's lymphoma.

 Table S2. Percent of each dose level administered over treatment cycles.

		B-NHL with HLH						T/NK-NHL with HLH					
Dose	Change relative	1	2	3	4	5	6	1	2	3	4	5	6
level	to dose level	(n=26)	(n=21)	(n=21)	(n=21)	(n=21)	(n=21)	(n=29)	(n=17)	(n=13)	(n=6)	(n=5)	(n=4)
-1	80		8	5	5	4	3		8	4			
1	100	26	13	8	9	10	11	29	9	9	5	4	2
2	120			8	7	7	6				1	1	1
3	144						1						1

Abreviations: HLH=hemophagocytic lymphohistiocytosis; NHL=non-Hodgkin's lymphoma; NK=natural killer.