डॉ. बी. आर. अम्बेडकर संस्थान रोटरी कैंसर अस्पताल
Dr. B.R. Ambedkar Institute Rotary Cancer Hospital
अ.भा.आ.सं अस्पताल/AIIMS

OPR-6

बहिरंग रोगी टिकट

अस्पताल के अन्दर पर्चा

एकक/Unit Prof SB/Dr. M
विभाग/Dept. MO

नाम/Name Surbhi Singh

Date of Birth

निदान/Diagnosis AML -3rd F 13/9/24

IRCH No. 327833
Clinic Paediatric Medical Oncology Clinic
Deptt. MEDICAL ONCOLOGY
General
नाम
Name SURBHI SINGH
D/O- SUNEEL SINGH
DR. B.R.A. IRCH,AIIMS,NEW DELHI
Reg.Date-30/09/2024
Clinic No. 7780/2024
UHID-107782829
Sex/Age F /5Y
Room Board Room (Shift Afternoon)

दिनांक/Date	उपचार/ Treatment
06/10/24	FN (improving) f/u in MO OPD on 9/10 ✓ CBC/RFT/LFT Rx 1. Tab. AUGMENTIN 250mg TDS x 5days and R/V in OPD 2. Tab. LEVOFLOXACIN 250mg OD x 5days 3. Cap. LANZOL IR 15mg OD BBF x 7days ~~4. Tab. NOBIS 250mg TDS x 3d~~ 4. Inj. GCSF 100 µg S/c OD x 3days ✓ R/V in OPD (Room 15) 5. Tab. VORICONAZOLE 100mg BD to contd. 6. Plenty of oral fluids 7. CAMW/SB/CI TDS. 8. TPCM 250mg PO ~~BD~~ BD x 2days ✓ SOS.

Dr. T.N. BHAVANI VISHNU
Dharani | SR.
Department of Medical Oncology
AIIMS, New Delhi-110029

डा. बी. आर. अम्बेडकर संस्थान रोटरी कैंसर अस्पताल
Dr. B.R. Ambedkar Institute Rotary Cancer Hospital
अ.भा.आ.सं. अस्पताल/A.I.I.M.S. HOSPITAL

OPR-6

Clinic: Paediatric Medical Oncology Clinic
Dept: MEDICAL ONCOLOGY

Reg Date 09/09/2024
Clinic No. 7780/2024
UHID-107782829

Name SURBHI SINGH
D/O SUNEEL SINGH

Address JAINAGAR NO 3 CHATTARPUR RUDRAPUR UDHAM SINGH NAGAR, UTTRAKHAND, Pin 263153, INDIA

Sex/Age F/5Y
Room Board Room (Shift Morning)

इकाई/Unit
विभाग/Dept
नाम/Name
...n. No.
जन्म तिथि/Date of Birth

निदान/Diagnosis — Imp: ? AML

दिनांक/Date	उपचार/Treatment
9/9/24 Wt = 16kg Cyto 10/09/2024 R. 1015 8:30am Wt - 16.3 kg Ht - 103cm MAC - 15.4cm	(1) BMA [PS R. 408 / Flow Cytometry / Karyotyping / ~~molecular studies~~] — Dated on (Onc) 10/9/24 at 8:30am. [Jai] 8826959410 NGS Harsh Sain (2) 6 Blood donate (New emergency Blood Bank) 14/9/24 (3) CBC/RFT/LFT/viral marker PICC line Grosh... LO(1) 4F (4) 2D Echo
To BBO kindly issue 6 donor for this pt [signature]	(5) Baseline CT chest + PNS. (6) to start ADE after baseline w/up. 3+7 (7) ~~Add Tab. voriconazole 200mg~~ ... ½ BD (8) F/up on ~~10/9/24~~ 12/9 (OPD-5) c CBC/RFT/LFT

Dr. SHUBHAM SAINI ... AIIMS, New Delhi

Senior Resident, Pediatric Oncology, Pediatrics ... Sciences

अंगदान-जीवन का बहुमूल्य उपहार/ORGAN DONATION - A GIFT OF LIFE
O.R.B.O., AIIMS, 26588360, 26593444, www.orbo.org Helpline - 1060 (24 hrs service)
बाहर से आने वाले रोगियों के लिए धर्मशाला की सुविधा उपलब्ध है/Dharamshala facility is available for outstation patients

1017-04796

FOR BETTER MEDICAL DECISIONS

(1)

डॉ. बी. आर. अम्बेडकर संस्थान रोटरी कैंसर अस्पताल
Dr. B.R. Ambedkar Institute Rotary Cancer Hospital

अ.भा.आ.
बहिरंग

OPR-6

Clinic: Paediatric Medical Oncology Clinic
Dept. MEDICAL ONCOLOGY
General
Clinic No. 77830/2024
UHID-107782829

अस्पताल के अन्दर ... नाम DRCH - 327833

एकक/Unit Dr SB/DP
विभाग/Dept. MO

Name SURBHI SINGH
D/O- SUNEEL SINGH
Sex/Age F/5Y
Room Board Room (Shift Morning)
Address JAINAGAR NO 3 CHATTARPUR RUDRAPUR UDHAM SINGH NAGAR, UTTRAKHAND, Pin:263153, INDIA

नाम/Name
Surbhi Singh

Date of Birth

DR. B.R.A. IRCH,AIIMS,NEW DELHI

निदान/Diagnosis ∆ AML - s/p 3+7 (14/9 — 20/9)

दिनांक/Date | उपचार/ Treatment

21/9/24.

D3 (M) 23/9/24 (E)

(कमरा-15)

Rx

1. ~~Inj Magnex 2g BD x 3 days~~ — (R-15)
2. T Voriconazole 200mg BD to continue —→ (G/AR) (जि ....)
3. T Lanzol Jr 20mg OD to continue —→
4. T Emeset 2mg SOS (उल्टी)
5. plenty of oral fluids ~(2-2.5 L/day) (ज्यादा पानी)
6. (...) CHMW/SI/SB TDS (3 बार)
7. PICC line care — (Room 15) (कमरा-15)
8. SDP Transfusion on 23/9/24 — Daycare — Daycare (...)

F/U - MO OPD — 23/9/24 : CBC/LFT/KFT

Review RDS in emergency
if fever / loose stools / oral ulcers

Dr ... SHAHI
Senior Resident
Dept. of Medical Oncology

अंगदान–जीवन का बहुमूल्य उपहार / ORGAN DONATION - A GIFT OF LIFE
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बाहर से आने वाले रोगियों के लिए धर्मशाला की सुविधा उपलब्ध है/ Dharamshala facility is available for outstation patients

डॉ. बी. आर. अम्बेडकर संस्थान रोटरी कैंसर अस्पताल
Dr. B.R. Ambedkar Institute Rotary Cancer Hospital
अ.भा.आ.सं अस्पताल/A.I.I.M.S. Hospital

OPR-6

बहिरंग रोगी विभाग/ Out Patient Department

...SMOKING PROHIBITED IN HOSPITAL PREMISES

DR. B.R.A. IRCH,AIIMS,NEW DELHI
RCH No. 327833
linic Paediatric Medical Oncology Clinic
ptt. MEDICAL ONCOLOGY
eneral
Reg.Date-09/09/2024
Clinic No. 7780/2024
UHID-107782829
ame SURBHI SINGH
O- SUNEEL SINGH
Sex/Age F /5Y
Room Board Room (Shift Morning)
ldress JAINAGAR NO 3 CHATTARPUR RUDRAPUR UDHAM SINGH
AGAR, UTTRAKHAND, Pin:263153, INDIA

ब०रो०वि० पंजीकृत सं०/O.P.D. Regn. No.

लिंग Sex	आयु Age	जन्म तिथि/Date of Birth

दिनांक/Date	उपचार/ Treatment
Dressing 27/9/24 (...)	DAYCARE 1/2/3/NCI MEDICAL ONCOLOGY AIIMS Date: 1/10/24 Time: 7:30 AM — ok (SDP)
30/9/24 – back flow... flushing (dressing done)	
7/10/24	
30/9/24	d#17
1.	Inj. MAGNEX 1.5g IV BID — ...-15 x 3 day
D1 (E) 30/9/24 2.	Inj. MEROPENEM 500mg IV BID
D2 (m) + G-CSF (E) 1/10/24 3.	T. LINID 1/4 Tab (...) x 5 day
4.	Inj. G-CSF 100mcg S/C — ...-15 — 30/9, 1/x
5.	SDP line 2 bag — 2nd floor Apharesis lab / Daycare

अंगदान–जीवन का बहुमूल्य उपहार / ORGAN DONATION - A GIFT OF LIFE
O.R.B.O.AIIMS, 26588360, 26593444, www.orbo.org Helpline-1060 (24 hrs. service)
बाहर से आने वाले रोगियों के लिए धर्मशाला की सुविधा उपलब्ध है/ Dharamshala facility is available for outstation patients

FH
NS

O/E

GC fair
hydrated
Temp Afeb
No Pallor
P/A - soft, nontender
P/S - cervix, vagina (CH)
P/V - cervix firm
ut NS, AV
B/L FFNT

26/5/25
Chest Xray - (L) basal pleural effusion thickening

26/5/25
USG - Ut A/V
ET - 10mm
(R) ovary N/L
dilated tubular structure 4.6 x 2 cm ? hydrosalpinx ? pyosalpinx
(L) ovary N/L

Adv (NDB)
- Medicine consult to rule out TB
- ~~CE MRI pelvis~~
- ~~RFT~~
- R/w E reports in case of fever, abdominal pain

RL

Dr. RESHMA DILIP
Junior Resident
Obstetrics & Gynaecology
AIIMS, New Delhi
DMC No-105229

The Medicity

ECHOCARDIOGRAPHY INVESTIGATION REPORT

Patient Name	: Baby Surbhi Singh	LOCATION	: TMR
AGE/SEX	: 6 Years /Female	Order Date	: 08-08-2025
UHID NO	: Reg No- 61336		
Referred By	: Self	Report Date	: 08-08-2025

Results:

- Situs Solitus.
- Levocardia.
- AV and VA concordance.
- Normal Related Great Arteries.
- No MVP.
- LVEF 60%.
- Normal Mitral inflow Doppler E>A.
- Tricuspid Aortic Valve.
- Normal RV Systolic Function.
- **Mild TR RVSP 36mmHg.**
- Peak Velocity across Pulmonary valve 1.2m/sec.
- No intra cardiac mass/ Clot.
- No Vegetation. No Pericardial Effusion.
- IVC Normal Collapsing.

Dr Abhishek Sakhariya
MBBS,MD,DM Cardiology

Dr Jitendra Mohan Sharma
MBBS,DNB,CARDIO THORACIC VASCULAR SURGEON (CTVS)

(This is opinion and not final Diagnosis Clinical Pathological Co-relation is Must. Report is not valid for purpose.)

The Medicity
Rudrapur
healing hands, caring hearts...

+91 790077177
info@themedicit
Teen Pani, Kichh
U.S. Nagar, Uttar
www.themedici

ECHOCARDIOGRAPHY INVESTIGATION REPORT

Patient Name	: Baby Surbhi Singh	LOCATION	: TMR
AGE/SEX	: 6 Years /Female	Order Date	: 08-08-202
UHID NO	: Reg No -65336		
Referred By	: Self	Report Date	: 08-08-202

Results:

- Situs Solitus.
- Levocardia.
- AV and VA concordance.
- Normal Related Great Arteries.
- No MVP.
- LVEF 60%.
- Normal Mitral inflow Doppler .E>A.
- Tricuspid Aortic Valve.
- Normal RV Systolic Function.
- **Mild TR RVSP 36mmHg.**
- Peak Velocity across Pulmonary valve 1.2m/sec.
- No Intra cardiac mass Clot.
- No Vegetation. No Pericardial Effusions.
- IVC Normal Collapsing.

Dr Abhishek Sakwariya
MBBS,MD,DM Cardiology

Dr Jitendra Mohan Sharma
MBBS,DNB,CARDIO THORAC
VASCULAR SURGEON (CTVS

(This is opinion and not final Diagnosis Clinical Pathological Co-relation is Must. Report is not V
purpose.)

(3)

अ० भा० आ० सं० अस्पताल/A.I.I.M.S. HOSPITAL
बहिरंग रोगी विभाग /Out Patient Department
अस्पताल के अन्दर धूम्रपान मना है।/SMOKING IS PROHIBITED IN HOSPITAL PREMISES

OPR-6

एकक/Unit _____
विभाग/Dept. _____

/O.P.D. Regn. No. _____

नाम/Name

पता/Address

UHID:108427313
Dept No. 20250100018336
कमरा / Room 3
Queue/ संख्या N16
Unit-I, Obs. and Gynae.
PREETI PREETI
W/O SUNIL SINGH
28Y 2M 0D / F(महिला)
JAINAGAR NO.3 POST CHATTARPUR
UDHAM SINGH NAGAR RUDARPUR
General Rs. 0
New Patient
10
Reporting: 09:03:15
31/07/2025

निदान/Diagnosis

दिनांक/Date

उपचार/Treatment

c/o lower abdominal pain
x 3 months

MH
LMP - 12/6/25
Regular cycle, avg. flow

OH
P_2L_2
both FTNVD
LCB - 2019

PH
k/c/o SAL Subacute Intestinal Obstruction. in 2019 → Underwent laparotomy + Adhesiolysis ⇒ diagnosed ē Ab TB, took ATT for 6 months
k/c/o ⓛ tubal ectopic ruptured → underwent laparotomy in 2017 at JSS.

CLEAN AND GREEN AIIMS / एम्स का यही संकल्प, स्वच्छता से कायाकल्प
अंगदान-जीवन का बहुमूल्य उपहार/ORGAN DONATION - A GIFT OF LIFE
O.R.B.O., AIIMS, 26588360, 26593444, www.orbo.org Helpline - 1060 (24 hrs service)

मेरा अस्पताल My Hospital meraaspatal.nhp.gov.in

अ.भा.आ.संस्थान अस्पताल
A.I.I.M.S. HOSPITAL

प्रवेश-पत्र / Entry Pass

(केवल एक व्यक्ति के लिए / For One Person only)

रोगी का नाम
Name of the Patient ..... Surbhi .....

वार्ड/शैय्या सं.
Ward/Bed No. ..... C6-36 .....

अवधि दिनांक 21/01/25 तक 29/01/25
Period from ..... to .....

पास जारी किया
PASS ISSUED

कृते चिकित्सा अधीक्षक
For Medical Superintendent

डा. बी. आर. अम्बेडकर संस्थान रोटरी कैंसर अस्पताल
Dr. B.R. Ambedkar Institute Rotary Cancer Hospital
अ.भा.आ.सं अस्पताल / A.I.I.M.S. HOSPITAL

OPR-6

बहिरंग :
अस्पताल के अन्दर भूत

DR. B.R.A. IRCH,AIIMS,NEW DELHI
IRCH No. 327833
Clinic Paediatric Medical Oncology Clinic
Dept. MEDICAL ONCOLOGY
General
Reg.Date-17/10/2024
Clinic No. 7780/2024
UHID-107782829

एकक /Unit DR SB/DrOP
विभाग/Dept. MO.

नाम /Name
पिता/पुत्र नाम
F/S/H Name SURBHI SINGH
D/O- SUNEEL SINGH
Sex/Age F /5Y
Room 6 (Shift Afternoon)
Address JAINAGAR NO 3 CHATTARPUR RUDRAPUR UDHAM SINGH NAGAR, UTTRAKHAND, Pin-263153, INDIA

Date of Birth

CTP-120825008 107782829
MissSURBHI...

निदान / Diagnosis: AML Relapse

दिनांक / Date	उपचार / Treatment
11/08/25	Adv 1. 6 O blood donation दूसरा दाता (Blood Bank 2. transplant w/u recipient - eGFR - dental opinion दांत वाले Doctor - TORCH profile - viral markers - DSA class 2 की donor (brother) - viral markers - Toxoplasma - Blood group Priyanka 4th floor 7904294234 3. peripheral blood - NGS / cytogenetics } 4th floor 4. BMA 4R flow cytometry N/V on 14/08/25 5. restart AOE (re-induction after blood donation)

Lot- 18-715

CK993980

आ. बी. आर. अम्बे[illegible]

Dr. B.R. Ambed[illegible]

अ.भा.आ.[illegible]

OPD #

पंजाक/Unit: MO

दिन/Days: [illegible]

नाम/Name

[illegible]

Name: [illegible]

Address: [illegible]

निदान/Diagnosis: AML relapse

दिनांक/Date	उपचार/Treatment
Date 18/08/2025	C1
	Inj. Emeset 8mg IVP.
	✓ Inj. Daunomycin D1 – D3 40mg in 100ml.
	✓ Inj. Etoposide D1 – 200mg in 10 CT-D
	D2 – 100mg in 10CT-D.
	D3 – 100mg in 10CT-D
28-13495	
(Daycare)	Inj. Ara C 75mg SC/IVP D1 – D10
	D1 21/08 Inj.
	IT – ITM TX – 12mg
	Ara C 30mg
	Hydrocort 15mg
	F/up 21/08/2025 c CBC, LFT, RFT

Stamps: DAYCARE ... MEDICAL ONCOLOGY AIIMS; Date 21/8; 22/8; 23/8; 21/08/2025

21/8/25

c/o fever x 3 days
Bleeding ugum NOF
[illegible]

CBC: 3.9 / 14,500 / 640 / Plt 11,000

[illegible]

Adv
D2 — (1) 21/8/25
1. Inj Meropenem 1gm IV BD } x 5 day
Inj Amikacin 500mg IV OD

2. Tab PCM (500mg) ½ tab SOS

3. Tab SEPTRAN (80/400) 1 tab OD alternate day

4. Tab VORICONAZOLE (200mg) 1 tab BD

5. [illegible] Re-induction chemo

6. F/U 25/08/25 [illegible]

danger sign explained

SDP

MEDICAL ONCOLOGY AIIMS
Date: 21/8
Time: 7:30 AM

PRBC

MEDICAL ONCOLOGY AIIMS
Date: 21/8
Time: 7:30 AM

D3 — (1) 23/8/25
D4 — (1) 24/8/25

— Kindly donate 1U PRBC

25/8/25

Advice

1. BT-1D (Daycare)
2. SDP 1 in 2 bag < 1st floor Abhamane [illegible] Daycare
3. Cont. Mero/Amikacin x 3 day
4. Inj ARA-C 75 mg IV/SQ B/D x 6 day
5. F/U with CBC on 1/9 [illegible]


36

Name	: Babv SURBHI SINGH		
Lab No.	: 183808840	**Age**	: 5 Years
Ref By	: dr sameer bakshi	**Gender**	: Female
Collected	: 10/9/2024 1:15:00PM	**Reported**	: 3/10/2024 4:02:04PM
A/c Status	: P	**Report Status**	: Final
Collected at	: Yusuf Sarai – Lab C.L HOUSE, UPPER GROUND FLOOR, 4/1-3 AUROBINDO MARG, YUSUF SARAI(NEAR AIIMS GATE NO.3) New Delhi - 110016	**Processed at**	: LPL-NATIONAL REFERENCE LAB National Reference laboratory, Block E, Sector 18, Rohini, New Delhi -110085

Test Report

Test Name	Results	Units	Bio. Ref. Interval
ONCOPRO COMPREHENSIVE LEUKAEMIA PANEL: DNA MUTATIONS & RNA FUSIONS	Result Attached		

Dr Vamshi Krishna Thamtam
MCI - 17-25915
MBBS, MD Pathology
DipRCPath UK, Molecular Genetics
Fellowship, Tata Medical Center
Head - Genomics & Clinical Cytogenomics
NRL - Dr Lal PathLabs Ltd

----------End of report ----------

IMPORTANT INSTRUCTIONS

•Test results released pertain to the specimen submitted.•All test results are dependent on the quality of the sample received by the Laboratory.•Laboratory investigations are only a tool to facilitate in arriving at a diagnosis and should be clinically correlated by the Referring Physician .•Report delivery may be delayed due to unforeseen circumstances. Inconvenience is regretted.•Certain tests may require further testing at additional cost for derivation of exact value. Kindly submit request within 72 hours post reporting.•Test results may show interlaboratory variations.•The Courts/Forum at Delhi shall have exclusive jurisdiction in all disputes/claims concerning the test(s) & or results of test(s).•Test results are not valid for medico legal purposes.•This is computer generated medical diagnostic report that has been validated by Authorized Medical Practitioner /Doctor.•The report does not need physical signature.

(#) Sample drawn from outside source.

If Test results are alarming or unexpected, client is advised to contact the Customer Care immediately for possible remedial action.

Tel: +91-11-49885050,Fax: - +91-11-2788-2134, E-mail: lalpathlabs@lalpathlabs.com

National Reference lab, Delhi, a CAP (7171001) Accredited, ISO 9001:2015 (FS60411) & ISO 27001:2013 (616691) Certified laboratory.

GENEVOLVE
Dr Lal PathLabs

Dr Lal PathLabs OncoPro

DEMOGRAPHICS		
	NAME	Baby SURBHI SINGH
	AGE/SEX	5 YEARS / FEMALE
	LAB NUMBER	183808840
	REFERRED BY	DR SAMEER BAKSHI
	REPORTING CENTRE	YUSUF SARAI – LAB
	RECEIVING DATE	10 / SEPTEMBER / 2024
	REPORTING DATE	03 / OCTOBER / 2024

TEST NAME	ONCOPRO COMPREHENSIVE LEUKAEMIA PANEL – DNA MUTATIONS & RNA FUSIONS

CLINICAL INDICATION	A 5 years old Female with Acute Leukemia under evaluation
GENE MUTATION	*NRAS*(NM_002524.5):c.34G>T;p.Gly12Cys
GENE FUSION	*KMT2A::MLLT10 Fusion* Detected

DNA MUTATIONS

GENE (EXON)	VARIANT INFORMATION				CLASSIFICATION (AMP/ASCO/CAP)
	Coding DNA Alteration	Amino Acid Alteration	Variant Allele Frequency	Coverage	
NRAS (Exon2)	c.34G>T	p.G12C	~25%	1998x	Tier IIC

RNA FUSIONS

Gene Fusion Detected	Read Counts	Read Counts (per million)
KMT2A(9)::MLLT10(9) Fusion	523	1098

GENEVOLVE
Dr Lal PathLabs

Dr Lal PathLabs OncoPro

HOTSPOT GENES COVERED (23)

ABL1	*BRAF*	*CBL*	*CSF3R*	*DNMT3A*	*FLT3*	*GATA2*
HRAS	*IDH1*	*IDH2*	*JAK2*	*KIT*	*KRAS*	*MPL*
MYD88	*NPM1*	*NRAS*	*PTPN11*	*SETBP1*	*SF3B1*	*SRSF2*
U2AF1	*WT1*					

FULL GENES COVERED (17)

ASXL1	*BCOR*	*CALR*	*CEBPA*	*ETV6*	*EZH2*	*IKZF1*
NF1	*PHF6*	*PRPF8*	*RB1*	*RUNX1*	*SH2B3*	*STAG2*
TET2	*TP53*	*ZRSR2*				

FUSION DRIVER GENES COVERED (29)

ABL1	*ALK*	*BCL2*	*BRAF*	*CCND1*	*CREBBP*	*EGFR*
ETV6	*FGFR1*	*FGFR2*	*FUS*	*HMGA2*	*JAK2*	*KMT2A*
TFE3	*MECOM*	*MET*	*MLLT10*	*MLLT3*	*MYBL1*	*MYH11*
NTRK3	*NUP214*	*PDGFRA*	*PDGFRB*	*RARA*	*RBM15*	*RUNX1*
TCF3						

EXPRESSION GENES (5)

BAALC	*MECOM*	*MYC*	*SMC1A*	*WT1*

GENEVOLVE
Dr Lal PathLabs

Dr Lal PathLabs OncoPro

Tier Classification (AMP/ASCO/CAP)

Tier I: Variants of Strong Clinical Significance Therapeutic, Prognostic & Diagnostic Relevance	Tier II: Variants of Potential Clinical Significance Therapeutic, Prognostic & Diagnostic Relevance	Tier III: Variants of Unknown Clinical Significance	Tier IV: Benign or Likely Benign Variants
Level A Evidence FDA-approved therapy included in professional guidelines	Level C Evidence FDA-approved therapies for different tumor types or investigational therapies Multiple small published studies with some consensus	Not observed at a significant allele frequency in the general or specific subpopulation databases, or pan-cancer or tumor-specific variant databases No convincing published evidence of cancer association	Observed at significant allele frequency in the general or specific subpopulation databases No existing published evidence of cancer association
Level B Evidence Well-powered studies with consensus from experts in the field	Level D Evidence Preclinical trials or a few case reports without consensus		

Dr Lal PathLabs

Regd. Office: Dr Lal PathLabs Ltd, Block-E, Sector-18, Rohini, New Delhi-110085
Web: www.lalpathlabs.com, CIN: L74899DL1995PLC065388

GENEVOLVE
Dr Lal PathLabs

Dr LalpathLabs
National Reference Laboratory
Rohini
Delhi - 110085

Lab ID : 183808840

Clinical Indication : A 5 years old Female with Acute Leukemia under evaluation
?AML

Sample Type : Peripheral Blood

Sample Cancer Type: Acute Lymphoblastic Leukemia

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Relevant Therapy Summary	3
Relevant Therapy Details	5
Prognostic Details	18
Clinical Trials Summary	18
Clinical Trials	23

Report Highlights

2 Relevant Biomarkers
16 Therapies Available
19 Clinical Trials

Relevant Biomarkers

Genomic Alteration	Relevant Therapies (In this cancer type)	Relevant Therapies (In other cancer type)	Clinical Trials
KMT2A::MLLT10 fusion **Prognostic significance:** NCCN: Poor	None	allogeneic stem cells azacitidine cladribine + cytarabine + daunorubicin cytarabine cytarabine + daunorubicin cytarabine + daunorubicin + etoposide cytarabine + daunorubicin + fludarabine cytarabine + etoposide + idarubicin cytarabine + fludarabine + idarubicin + filgrastim cytarabine + idarubicin cytarabine + mitoxantrone decitabine gemtuzumab ozogamicin glasdegib + chemotherapy liposomal cytarabine-daunorubicin CPX-351 venetoclax + chemotherapy	17
NRAS p.(G12C) c.34G>T Allele Frequency: 25.33%	None	None	2

Public data sources included in relevant therapies: FDA1, NCCN, **EMA**2, ESMO
Public data sources included in prognostic and diagnostic significance: NCCN, ESMO

Relevant Biomarkers (continued)

Alerts informed by public data sources: Contraindicated, Resistance, Breakthrough, Fast Track

KMT2A::MLLT10 fusion **revumenib** [1]

Public data sources included in alerts: FDA1, NCCN, **EMA**2, ESMO

Biomarker Descriptions

NRAS p.(G12C) c.34G>T

NRAS proto-oncogene, GTPase

Background: The NRAS proto-oncogene encodes a GTPase that functions in signal transduction and is a member of the RAS superfamily which also includes KRAS and HRAS. RAS proteins mediate the transmission of growth signals from the cell surface to the nucleus via the PI3K/AKT/MTOR and RAS/RAF/MEK/ERK pathways, which regulate cell division, differentiation, and survival[1,2,3].

Alterations and prevalence: Recurrent mutations in RAS oncogenes cause constitutive activation and are found in 20-30% of cancers. NRAS mutations are particularly common in melanomas (up to 25%) and are observed at frequencies of 5-10% in acute myeloid leukemia, colorectal, and thyroid cancers[4,5]. The majority of NRAS mutations consist of point mutations at G12, G13, and Q61[4,6]. Mutations at A59, K117, and A146 have also been observed but are less frequent[7,8].

Potential relevance: Currently, no therapies are approved for NRAS aberrations. The EGFR antagonists, cetuximab[9] and panitumumab[10], are contraindicated for treatment of colorectal cancer patients with NRAS mutations in exon 2 (codons 12 and 13), exon 3 (codons 59 and 61), and exon 4 (codons 117 and 146)[8]. In 2022, the FDA has granted fast track designation to the pan-RAF inhibitor, KIN-2787[11], for the treatment of NRAS-mutant metastatic or unresectable melanoma. In 2023, the FDA has granted fast track designation to the pan-RAF inhibitor, naporafenib, in combination with trametinib[12] for NRAS-mutated unresectable or metastatic melanoma. NRAS mutations are associated with poor prognosis in patients with low-risk myelodysplastic syndrome[13] as well as melanoma[14]. In a phase III clinical trial in patients with advanced NRAS-mutant melanoma, binimetinib improved progression free survival (PFS) relative to dacarbazine with median PFS of 2.8 and 1.5 months, respectively[15].

Variant Details

DNA Sequence Variants

Gene	Amino Acid Change	Coding	Variant ID	Locus	Allele Frequency	Transcript	Variant Effect
NRAS	p.(G12C)	c.34G>T	COSM562	chr1:115258748	25.33%	NM_002524.5	missense

Gene Fusions

Genes	Variant ID	Locus
KMT2A::MLLT10	KMT2A-MLLT10.K9M9	chr11:118355029 - chr10:21940602

Relevant Therapy Summary

● In this cancer type ○ In other cancer type ◑ In this cancer type and other cancer types ✕ No evidence

KMT2A::MLLT10 fusion

Relevant Therapy	FDA	NCCN	EMA	ESMO	Clinical Trials*
Allogeneic hematopoietic stem cell transplantation	✕	○	✕	○	✕
cytarabine + daunorubicin	✕	○	✕	○	✕
azacitidine	✕	○	✕	✕	✕
cytarabine	✕	○	✕	✕	✕
cytarabine + daunorubicin + etoposide	✕	○	✕	✕	✕
cytarabine + etoposide + idarubicin	✕	○	✕	✕	✕
cytarabine + fludarabine + idarubicin + filgrastim	✕	○	✕	✕	✕
cytarabine + idarubicin	✕	○	✕	✕	✕
cytarabine + mitoxantrone	✕	○	✕	✕	✕
decitabine	✕	○	✕	✕	✕
gemtuzumab ozogamicin	✕	○	✕	✕	✕
glasdegib + cytarabine	✕	○	✕	✕	✕
liposomal cytarabine-daunorubicin CPX-351	✕	○	✕	✕	✕
venetoclax + azacitidine	✕	○	✕	✕	✕
venetoclax + cytarabine	✕	○	✕	✕	✕
venetoclax + decitabine	✕	○	✕	✕	✕
cladribine + cytarabine + daunorubicin	✕	✕	✕	○	✕
cytarabine + daunorubicin + fludarabine	✕	✕	✕	○	✕
allogeneic stem cells, chemotherapy, radiation therapy	✕	✕	✕	✕	● (II)
allopurinol, chemotherapy, sirolimus, radiation therapy, mycophenolate mofetil	✕	✕	✕	✕	● (II)
CART-CD19	✕	✕	✕	✕	● (II)
α/β CD3+ T-cell and CD19+ B-cells	✕	✕	✕	✕	● (II)
blinatumomab, bortezomib, vorinostat, ziftomenib, steroid, chemotherapy	✕	✕	✕	✕	● (I/II)
BN-104	✕	✕	✕	✕	● (I/II)

* Most advanced phase (IV, III, II/III, II, I/II, I) is shown and multiple clinical trials may be available.

Relevant Therapy Summary (continued)

● In this cancer type ○ In other cancer type ◑ In this cancer type and other cancer types ✖ No evidence

KMT2A::MLLT10 fusion (continued)

Relevant Therapy	FDA	NCCN	EMA	ESMO	Clinical Trials*
stem cell therapy	✖	✖	✖	✖	● (I/II)
bleximenib	✖	✖	✖	✖	● (I)
BMF-219	✖	✖	✖	✖	● (I)
BMF-500	✖	✖	✖	✖	● (I)
CART cell therapy	✖	✖	✖	✖	● (I)
CART-CD19/CD22, stem cell engraftment therapy (Orca Biosystems)	✖	✖	✖	✖	● (I)
CART-CD19A, chemotherapy	✖	✖	✖	✖	● (I)
HMPL-506	✖	✖	✖	✖	● (I)
radiation therapy, chemotherapy, stem cell engraftment therapy (Orca Biosystems), tacrolimus	✖	✖	✖	✖	● (I)
venetoclax, chemotherapy	✖	✖	✖	✖	● (I)

NRAS p.(G12C) c.34G>T

Relevant Therapy	FDA	NCCN	EMA	ESMO	Clinical Trials*
trametinib, steroid, chemotherapy	✖	✖	✖	✖	● (I/II)
JZP-815	✖	✖	✖	✖	● (I)

* Most advanced phase (IV, III, II/III, II, I/II, I) is shown and multiple clinical trials may be available.

Relevant Therapy Details

Current NCCN Information

● In this cancer type ○ In other cancer type ◑ In this cancer type and other cancer types

NCCN information is current as of 2024-08-01. To view the most recent and complete version of the guideline, go online to NCCN.org.
For NCCN International Adaptations & Translations, search www.nccn.org/global/what-we-do/international-adaptations.

Some variant specific evidence in this report may be associated with a broader set of alterations from the NCCN Guidelines. Specific variants listed in this report were sourced from approved therapies or scientific literature. These therapeutic options are appropriate for certain population segments with cancer. Refer to the NCCN Guidelines® for full recommendation.

KMT2A::MLLT10 fusion

○ **Allogeneic hematopoietic stem cell transplantation**

Cancer type: Acute Myeloid Leukemia **Variant class:** KMT2A fusion

Other criteria: KMT2A PTD negative

NCCN Recommendation category: 2A

Population segment (Line of therapy):
- (Consolidation therapy); Preferred intervention

Reference: NCCN Guidelines® - NCCN-Acute Myeloid Leukemia [Version 3.2024]

○ **azacitidine**

Cancer type: Acute Myeloid Leukemia **Variant class:** KMT2A fusion

Other criteria: KMT2A PTD negative

NCCN Recommendation category: 2A

Population segment (Line of therapy):
- (Consolidation therapy)

Reference: NCCN Guidelines® - NCCN-Acute Myeloid Leukemia [Version 3.2024]

KMT2A::MLLT10 fusion (continued)

○ cytarabine

Cancer type: Acute Myeloid Leukemia **Variant class:** KMT2A fusion

Other criteria: KMT2A PTD negative

NCCN Recommendation category: 2A

Population segment (Line of therapy):
- (Consolidation therapy)

Reference: NCCN Guidelines® - NCCN-Acute Myeloid Leukemia [Version 3.2024]

○ cytarabine + daunorubicin

Cancer type: Acute Myeloid Leukemia **Variant class:** KMT2A fusion

Other criteria: KMT2A PTD negative, TP53 mutation negative

NCCN Recommendation category: 2A

Population segment (Line of therapy):
- (Induction therapy); Other recommended intervention

Reference: NCCN Guidelines® - NCCN-Acute Myeloid Leukemia [Version 3.2024]

○ cytarabine + daunorubicin

Cancer type: Acute Myeloid Leukemia **Variant class:** KMT2A fusion

Other criteria: Deletion 17p negative, KMT2A PTD negative

NCCN Recommendation category: 2A

Population segment (Line of therapy):
- (Induction therapy); Other recommended intervention

Reference: NCCN Guidelines® - NCCN-Acute Myeloid Leukemia [Version 3.2024]

○ cytarabine + daunorubicin + etoposide

Cancer type: Acute Myeloid Leukemia **Variant class:** KMT2A fusion

Other criteria: Deletion 17p negative, KMT2A PTD negative

NCCN Recommendation category: 2A

Population segment (Line of therapy):
- (Induction therapy); Useful in certain circumstances

Reference: NCCN Guidelines® - NCCN-Acute Myeloid Leukemia [Version 3.2024]

KMT2A::MLLT10 fusion (continued)

○ cytarabine + daunorubicin + etoposide

Cancer type: Acute Myeloid Leukemia **Variant class:** KMT2A fusion

Other criteria: KMT2A PTD negative, TP53 mutation negative

NCCN Recommendation category: 2A

Population segment (Line of therapy):
- (Induction therapy); Useful in certain circumstances

Reference: NCCN Guidelines® - NCCN-Acute Myeloid Leukemia [Version 3.2024]

○ cytarabine + etoposide + idarubicin

Cancer type: Acute Myeloid Leukemia **Variant class:** KMT2A fusion

Other criteria: KMT2A PTD negative, TP53 mutation negative

NCCN Recommendation category: 2A

Population segment (Line of therapy):
- (Induction therapy); Useful in certain circumstances

Reference: NCCN Guidelines® - NCCN-Acute Myeloid Leukemia [Version 3.2024]

○ cytarabine + etoposide + idarubicin

Cancer type: Acute Myeloid Leukemia **Variant class:** KMT2A fusion

Other criteria: Deletion 17p negative, KMT2A PTD negative

NCCN Recommendation category: 2A

Population segment (Line of therapy):
- (Induction therapy); Useful in certain circumstances

Reference: NCCN Guidelines® - NCCN-Acute Myeloid Leukemia [Version 3.2024]

○ cytarabine + fludarabine + idarubicin + filgrastim

Cancer type: Acute Myeloid Leukemia **Variant class:** KMT2A fusion

Other criteria: KMT2A PTD negative

NCCN Recommendation category: 2A

Population segment (Line of therapy):
- (Consolidation therapy)

Reference: NCCN Guidelines® - NCCN-Acute Myeloid Leukemia [Version 3.2024]

KMT2A::MLLT10 fusion (continued)

cytarabine + idarubicin

Cancer type: Acute Myeloid Leukemia **Variant class:** KMT2A fusion

Other criteria: KMT2A PTD negative, TP53 mutation negative

NCCN Recommendation category: 2A

Population segment (Line of therapy):
- (Induction therapy); Other recommended intervention

Reference: NCCN Guidelines® - NCCN-Acute Myeloid Leukemia [Version 3.2024]

cytarabine + idarubicin

Cancer type: Acute Myeloid Leukemia **Variant class:** KMT2A fusion

Other criteria: Deletion 17p negative, KMT2A PTD negative

NCCN Recommendation category: 2A

Population segment (Line of therapy):
- (Induction therapy); Other recommended intervention

Reference: NCCN Guidelines® - NCCN-Acute Myeloid Leukemia [Version 3.2024]

decitabine

Cancer type: Acute Myeloid Leukemia **Variant class:** KMT2A fusion

Other criteria: KMT2A PTD negative

NCCN Recommendation category: 2A

Population segment (Line of therapy):
- (Consolidation therapy)

Reference: NCCN Guidelines® - NCCN-Acute Myeloid Leukemia [Version 3.2024]

gemtuzumab ozogamicin

Cancer type: Acute Myeloid Leukemia **Variant class:** KMT2A fusion

Other criteria: CD33 positive, KMT2A PTD negative

NCCN Recommendation category: 2A

Population segment (Line of therapy):
- (Consolidation therapy)

Reference: NCCN Guidelines® - NCCN-Acute Myeloid Leukemia [Version 3.2024]

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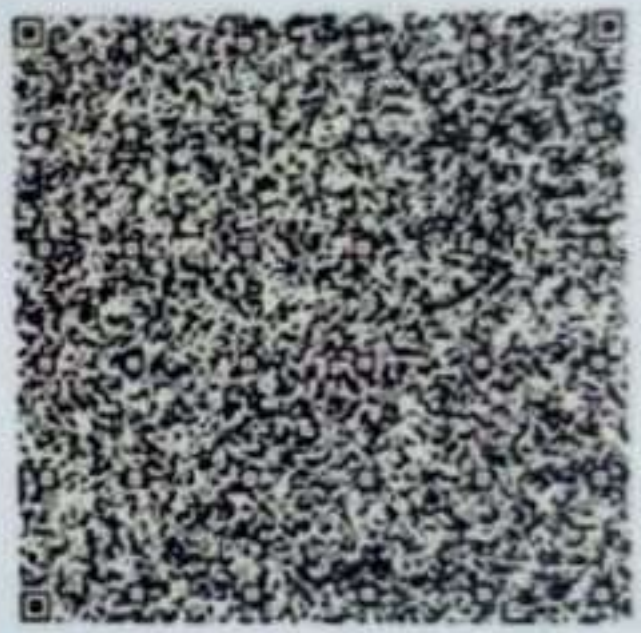

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