



Clinical Trial Details (PDF Generation Date :- Wed, 29 Jun 2022 20:27:48 GMT)

CTRI Number	CTRI/2011/07/001855 [Registered on: 01/07/2011] - Trial Registered Retrospectively	
Last Modified On	13/11/2018	
Post Graduate Thesis	No	
Type of Trial	Interventional	
Type of Study	Vaccine Biological Preventive Screening	
Study Design	Randomized, Parallel Group, Active Controlled Trial	
Public Title of Study	A Phase II/III, Randomized, Single Blinded, Active Controlled Study to Evaluate the Immunogenicity and Safety of inactivated Japanese encephalitis Vaccine in healthy volunteers	
Scientific Title of Study	A Phase II/III, Randomized, Single Blinded, Active Controlled Study to Evaluate the Immunogenicity and Safety of Inactivated Japanese encephalitis Vaccine in healthy volunteers	
Secondary IDs if Any	Secondary ID	Identifier
	BBIL/JEV/II/III/2011	Protocol Number
Details of Principal Investigator or overall Trial Coordinator (multi-center study)	Details of Principal Investigator	
	Name	DrAnit Singh
	Designation	MBBS, MD
	Affiliation	
	Address	Bharat Biotech International Ltd Genome Valley, Turkapally Shameerpet Mandal Ranga Reddy District Andhra Pradesh Hyderabad ANDHRA PRADESH 500 078 India
	Phone	
	Fax	
	Email	anits@bharatbiotech.com
Details Contact Person (Scientific Query)	Details Contact Person (Scientific Query)	
	Name	DrA Singh
	Designation	Asst. Medical Director
	Affiliation	
	Address	Genome Valley, Shameerpet, Hyderabad. A.P. India. Hyderabad ANDHRA PRADESH 500 078 India
	Phone	04023480567
	Fax	04023480560
	Email	anits@bharatbiotech.com
Details Contact Person (Public Query)	Details Contact Person (Public Query)	
	Name	DrA Singh
	Designation	Asst. Medical Director
	Affiliation	
	Address	Genome Valley, Shameerpet, Hyderabad. A.P. India. East Godavari ANDHRA PRADESH 500 078 India



Phone	04023480567			
Fax	04023480560			
Email	anits@bharatbiotech.com			
Source of Monetary or Material Support	Source of Monetary or Material Support			
	> Bharat Biotech Intl Ltd			
Primary Sponsor	Primary Sponsor Details			
Name	Bharat Biotech Intl Ltd			
Address	Genome Valley, Shameerpet, Hyderabad - 500 078. A.P. India			
Type of Sponsor	Pharmaceutical industry-Indian			
Details of Secondary Sponsor	Name	Address		
	NIL	NIL		
Countries of Recruitment	List of Countries			
	India			
Sites of Study	Name of Principal Investigator	Name of Site	Site Address	Phone/Fax/Email
	Dr G Sampath	Institute of Preventive Medicine	Narayanaguda Hyderabad-500029 Andhra pradesh Hyderabad ANDHRA PRADESH	09912277002 dr.gsampath11@gmail.com
	DrMukesh Gupta	Soumya child clinic	Soumya child clinic 61/226, sector 6 pratap nagar sangaranar Jaipur RAJASTHAN	0946055395 drmukeshgupta.pediatri cs@gmail.com
Details of Ethics Committee	Name of Committee	Approval Status	Date of Approval	Is Independent Ethics Committee?
	Central Ethics committee Vishaka	Approved	20/06/2011	Yes
	Ethics committee, Mysore Medical Collage Research Center	Approved	11/07/2011	No
	Institute of child health	Approved	03/08/2011	No
	Institute of Preventive medicine	Approved	07/05/2011	No
	Institutional ethics committee ,Mahavir medical Research center	Approved	02/07/2011	No
	Institutional ethics Committee, Gandhi Hospital	Approved	04/06/2011	No
	Institutional etics Committee, King George Hospital	Approved	09/04/2011	No
	Sanjeevini ethics committee	Approved	28/05/2011	No
	Vishaka central ethics committee	Approved	20/06/2011	Yes
Regulatory Clearance Status from DCGI	Status		Date	
	Approved/Obtained		26/04/2011	



Health Condition / Problems Studied

Health Type	Condition
Healthy Human Volunteers	Healthy volunteers of 50 to 1 years age group (inclusive) without significant medical history or abnormal findings at screening

Intervention / Comparator Agent

Type	Name	Details
Intervention	JENVAc	The JE vaccine (BBILS) is purified inactivated vaccine, containing the JEV strain isolated from a clinical case of JE infection from an endemic area in India. The strain was adapted to grow in Vero cells. The vaccine was prepared by purification and inactivation process consistent with current Good Manufacturing Practices. Liquid 0.5 mL of Test Vaccine will be injected as two doses on day 0 and day 282 by Intramuscular route.
Comparator Agent	SA 14-14-2	The SA 14-14-2 is a Live, attenuated Japanese encephalitis vaccine. It was developed and is produced by Chengdu Institute of Biological products (CDIBP), China Lyophilized Reference Vaccine 0.5mL will be injected after reconstitution with the diluent supplied as one dose on day 0 and second dose will be Placebo on day 282 by subcutaneous route.

Inclusion Criteria

Inclusion Criteria	
Age From	50.00 Year(s)
Age To	1.00 Year(s)
Gender	Both
Details	1.Healthy volunteers of 50 to 1 years age group (inclusive) without significant medical history or abnormal findings at screening 2.Willing to give signed written Informed Consent. 3.Available for all study related visits and procedures for the entire duration of the study, without any known exposure to JE prior to the first screening visit based on previous clinical history.

Exclusion Criteria

Exclusion Criteria	
Details	1. Subjects with the age less than 1 and above 50 years. 2. Fever of any origin of duration more than 3 days within one month prior to screening or on the day of screening. 3. History of malaise, head ache, anorexia at the time of screening or during the administration of the vaccine under study. 4. Past history of JE infection. 5. Life threatening or serious cardiac (NYHA grades III-IV heart failure), respiratory gastrointestinal, Hepatic, renal, Endocrine, hematological or immune disorders. 6. Past history of / current allergic diseases. 7. Any confirmed or suspected immunosuppressive or immunodeficient condition 8. Use of any marketed or investigational or herbal medicine or non



	<p>registered drug or vaccine for JE or other vaccine in the past 2 months.</p> <p>9. Clinically relevant abnormal hematology or biochemistry values in the opinion of the investigator.</p> <p>10. Any criteria, which in the opinion of the investigator, suggests that the subject would not be compliant with the study protocol.</p> <p>11. Intention to travel out of the area prior to final or follow-up Visit on day 562.</p> <p>12. Previous history of hypersensitive reaction to vaccine or Vaccine component.</p>				
Method of Generating Random Sequence	Computer generated randomization				
Method of Concealment	An Open list of random numbers				
Blinding/Masking	Participant Blinded				
Primary Outcome	<table border="1"> <thead> <tr> <th>Outcome</th> <th>Timepoints</th> </tr> </thead> <tbody> <tr> <td>Proportion of participants achieving 4-fold or greater neutralizing antibody titer in subjects seropositive at baseline (?1:10) at day 28±2 after a single dose of vaccination. Proportion of participants that are seronegative at baseline (1:10) will require a PRNT50 titer of ?1:10 to meet the criteria for seroconversion at day 28±2 after a single dose of vaccination.. GMT in each group on day 0 and day 28±2.</td> <td>GMT at 0 and 282 day. 4-fold 562</td> </tr> </tbody> </table>	Outcome	Timepoints	Proportion of participants achieving 4-fold or greater neutralizing antibody titer in subjects seropositive at baseline (?1:10) at day 28±2 after a single dose of vaccination. Proportion of participants that are seronegative at baseline (1:10) will require a PRNT50 titer of ?1:10 to meet the criteria for seroconversion at day 28±2 after a single dose of vaccination.. GMT in each group on day 0 and day 28±2.	GMT at 0 and 282 day. 4-fold 562
Outcome	Timepoints				
Proportion of participants achieving 4-fold or greater neutralizing antibody titer in subjects seropositive at baseline (?1:10) at day 28±2 after a single dose of vaccination. Proportion of participants that are seronegative at baseline (1:10) will require a PRNT50 titer of ?1:10 to meet the criteria for seroconversion at day 28±2 after a single dose of vaccination.. GMT in each group on day 0 and day 28±2.	GMT at 0 and 282 day. 4-fold 562				
Secondary Outcome	<table border="1"> <thead> <tr> <th>Outcome</th> <th>Timepoints</th> </tr> </thead> <tbody> <tr> <td>Occurrence of solicited and unsolicited local and systemic AEs within 28 days and 56 days of post vaccination on day 0, 28±2 and 56±2. Occurrence of vaccine-associated SAEs throughout the course of the study. Proportion of participants achieving 4-fold or greater neutralizing antibody titer at day 56±2 after two doses of vaccination</td> <td>AEs day 0, 282 and 562 4-fold conversion 562</td> </tr> </tbody> </table>	Outcome	Timepoints	Occurrence of solicited and unsolicited local and systemic AEs within 28 days and 56 days of post vaccination on day 0, 28±2 and 56±2. Occurrence of vaccine-associated SAEs throughout the course of the study. Proportion of participants achieving 4-fold or greater neutralizing antibody titer at day 56±2 after two doses of vaccination	AEs day 0, 282 and 562 4-fold conversion 562
Outcome	Timepoints				
Occurrence of solicited and unsolicited local and systemic AEs within 28 days and 56 days of post vaccination on day 0, 28±2 and 56±2. Occurrence of vaccine-associated SAEs throughout the course of the study. Proportion of participants achieving 4-fold or greater neutralizing antibody titer at day 56±2 after two doses of vaccination	AEs day 0, 282 and 562 4-fold conversion 562				
Target Sample Size	<p>Total Sample Size=600</p> <p>Sample Size from India=600</p> <p>Final Enrollment numbers achieved (Total)=</p> <p>Final Enrollment numbers achieved (India)=</p>				
Phase of Trial	Phase 2/ Phase 3				
Date of First Enrollment (India)	25/06/2011				
Date of First Enrollment (Global)	No Date Specified				
Estimated Duration of Trial	<p>Years=0</p> <p>Months=6</p> <p>Days=15</p>				
Recruitment Status of Trial (Global)	Not Applicable				
Recruitment Status of Trial (India)	Completed				
Publication Details					
Brief Summary					



Product: Inactivated Japanese encephalitis Vaccine	
Protocol Number	BBIL/JEV/II/III/2011
Full Title of Project	A Phase II/III, Randomized, Single Blinded, Active Controlled Study to Evaluate Immunogenicity and Safety of inactivated Japanese encephalitis Vaccine in healthy
Short Title	Randomized, Single Blinded, Active Controlled Immunogenicity and Safety Study of Japanese encephalitis Vaccine.
Version Number and Date	Version 1.0 and 04/02/2011
Investigational Product	Inactivated Japanese encephalitis Vaccine
Clinical Phase	Phase II/III
Sponsor	Bharat Biotech International Ltd Genome Valley, Shameerpet, Hyderabad-500 078, Andhra Pradesh, India
Project Technical Advisers	Dr. Richard Chin , Director, Dr. Raj Shankar Ghosh , Regional Director, South Dr. Biswal Institute for One World Health New Delhi -110025 V: +91.11. 40601208/09, http://oneworldhealth.org



	<p>Dr. Milind Gore,</p> <p>National Institute of Virology,</p> <p>Pune, India.</p>																					
<p>Study Type</p>	<p>Preventive, Randomized, Single Blinded, Active Controlled Study</p>																					
<p>Study Population</p>	<p>A total of 600 healthy volunteers of age group participate in this study with 450 Test vaccine Reference vaccine group. The study will proceed in descending age group as mentioned below.</p> <table border="1" data-bbox="901 1220 1556 1691"> <thead> <tr> <th>Category</th> <th>Age in Years</th> <th>Test</th> <th>Reference</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>?50 to >18</td> <td>150</td> <td>150</td> </tr> <tr> <td>2</td> <td>?18 to >6</td> <td>150</td> <td>150</td> </tr> <tr> <td>3</td> <td>?6 to ?1</td> <td>150</td> <td>150</td> </tr> <tr> <td colspan="2">Total</td> <td>450</td> <td>450</td> </tr> </tbody> </table> <p>The sample size has been calculated on the following allocation ratio of 3:1 (test: reference), 90 % power, margin of 15%, one sided alpha - 97.5% CI. Based on these inputs, a total of 600 evaluable subjects are needed (300 in the Test group and 150 in the Reference group).</p>	Category	Age in Years	Test	Reference	1	?50 to >18	150	150	2	?18 to >6	150	150	3	?6 to ?1	150	150	Total		450	450	
Category	Age in Years	Test	Reference																			
1	?50 to >18	150	150																			
2	?18 to >6	150	150																			
3	?6 to ?1	150	150																			
Total		450	450																			
<p>Study Objectives</p>	<p>The primary objective is to Compare the Immunogenicity of Test vaccine with reference vaccine in terms of Seropositivity.</p>																					



	Geometric Mean Titers of JEV neutralizing antibody after two doses.	
	The Secondary objective is to assess and to evaluate the Safety of the cell cultured inactivated Japanese encephalitis Vaccine in healthy volunteers of 50 to 1 years.	
Study Design	Prevention, Randomized, Single Blinded, Active Control Study.	
	Screening Period	
	Visit 1:	
	After obtaining written Informed Consent from the subject (legally accepted subject in case of minor age groups), subjects will be screened for eligibility. Screening period might last for 7 days. Screening includes obtaining medical history, physical examination, demographic data (Weight, Height & Gender). Vital signs (Heart Rate, Body temperature-oral or auxiliary). After completion of the screening, if the subject is to be eligible, subject shall be enrolled into the study.	
	Treatment & Follow-up period	
	Visit 2 (Day 0):	
	Healthy volunteers of 50 to 1 years will be enrolled. 4 ml of blood sample will be collected for the vaccination for antibody estimation. They will receive either Test vaccine or Control vaccine according to the randomization.	
	Prior to vaccination, eligibility and medical history will be reviewed; vital signs and temperature will be measured. Subjects shall be observed for 30 minutes after administration for Vital signs, local reactions, and general symptoms for adverse events. Information will be recorded in the diary cards.	



Visit 3 (Day 282):

On the day 28 of the study, a physical examination and medical history sample will be collected for JE Anti body estimation, vital signs and body temperature will be recorded, dairy card checked and documented. Subjects will receive Second dose of vaccine. Signs and body temperature will be recorded 30-60 minutes post vaccination. Subjects will be observed for 30 minutes after vaccine administration for local reactions. The information will be recorded in the diary cards.

Visit 4 (Day 562):

On day 562, the final visit of the study, a physical examination and medical history performed. 4 ml of blood sample will be collected for JE Anti body estimation, vital signs and body temperature will be recorded dairy cards will also be checked and documented.

Unscheduled visits:

Subjects will be advised to return to Hospital as soon as possible during the study if the subject develops fever or if they are in any way concerned about their health. All unscheduled visits will be documented and details of treatment.

and recorded Adverse Events will be documented in the Case Record Form.

Following immunization, safety will be measured by assessment of Adverse Events 282 days following dose of vaccine. Also Serious Adverse Events (SAEs) will be monitored through 2 months after first dose of vaccination (Day 282). Adverse Events to the vaccine for 7 days following vaccination are evaluated.



		Immunogenicity testing will include antibody estimation on Day 0, Day 7, Day 14, Day 21, Day 28, Day 35, Day 42, Day 49, Day 56, Day 63, Day 70, Day 77, Day 84, Day 91, Day 98, Day 105, Day 112, Day 119, Day 126, Day 133, Day 140, Day 147, Day 154, Day 161, Day 168, Day 175, Day 182, Day 189, Day 196, Day 203, Day 210, Day 217, Day 224, Day 231, Day 238, Day 245, Day 252, Day 259, Day 266, Day 273, Day 280, Day 287, Day 294, Day 301, Day 308, Day 315, Day 322, Day 329, Day 336, Day 343, Day 350, Day 357, Day 364, Day 371, Day 378, Day 385, Day 392, Day 399, Day 406, Day 413, Day 420, Day 427, Day 434, Day 441, Day 448, Day 455, Day 462, Day 469, Day 476, Day 483, Day 490, Day 497, Day 504, Day 511, Day 518, Day 525, Day 532, Day 539, Day 546, Day 553, Day 560, Day 567, Day 574, Day 581, Day 588, Day 595, Day 602, Day 609, Day 616, Day 623, Day 630, Day 637, Day 644, Day 651, Day 658, Day 665, Day 672, Day 679, Day 686, Day 693, Day 700, Day 707, Day 714, Day 721, Day 728, Day 735, Day 742, Day 749, Day 756, Day 763, Day 770, Day 777, Day 784, Day 791, Day 798, Day 805, Day 812, Day 819, Day 826, Day 833, Day 840, Day 847, Day 854, Day 861, Day 868, Day 875, Day 882, Day 889, Day 896, Day 903, Day 910, Day 917, Day 924, Day 931, Day 938, Day 945, Day 952, Day 959, Day 966, Day 973, Day 980, Day 987, Day 994, Day 1001, Day 1008, Day 1015, Day 1022, Day 1029, Day 1036, Day 1043, Day 1050, Day 1057, Day 1064, Day 1071, Day 1078, Day 1085, Day 1092, Day 1099, Day 1106, Day 1113, Day 1120, Day 1127, Day 1134, Day 1141, Day 1148, Day 1155, Day 1162, Day 1169, Day 1176, Day 1183, Day 1190, Day 1197, Day 1204, Day 1211, Day 1218, Day 1225, Day 1232, Day 1239, Day 1246, Day 1253, Day 1260, Day 1267, Day 1274, Day 1281, Day 1288, Day 1295, Day 1302, Day 1309, Day 1316, Day 1323, Day 1330, Day 1337, Day 1344, Day 1351, Day 1358, Day 1365, Day 1372, Day 1379, Day 1386, Day 1393, Day 1400, Day 1407, Day 1414, Day 1421, Day 1428, Day 1435, Day 1442, Day 1449, Day 1456, Day 1463, Day 1470, Day 1477, Day 1484, Day 1491, Day 1498, Day 1505, Day 1512, Day 1519, Day 1526, Day 1533, Day 1540, Day 1547, Day 1554, Day 1561, Day 1568, Day 1575, Day 1582, Day 1589, Day 1596, Day 1603, Day 1610, Day 1617, Day 1624, Day 1631, Day 1638, Day 1645, Day 1652, Day 1659, Day 1666, Day 1673, Day 1680, Day 1687, Day 1694, Day 1701, Day 1708, Day 1715, Day 1722, Day 1729, Day 1736, Day 1743, Day 1750, Day 1757, Day 1764, Day 1771, Day 1778, Day 1785, Day 1792, Day 1799, Day 1806, Day 1813, Day 1820, Day 1827, Day 1834, Day 1841, Day 1848, Day 1855, Day 1862, Day 1869, Day 1876, Day 1883, Day 1890, Day 1897, Day 1904, Day 1911, Day 1918, Day 1925, Day 1932, Day 1939, Day 1946, Day 1953, Day 1960, Day 1967, Day 1974, Day 1981, Day 1988, Day 1995, Day 2002, Day 2009, Day 2016, Day 2023, Day 2030, Day 2037, Day 2044, Day 2051, Day 2058, Day 2065, Day 2072, Day 2079, Day 2086, Day 2093, Day 2100, Day 2107, Day 2114, Day 2121, Day 2128, Day 2135, Day 2142, Day 2149, Day 2156, Day 2163, Day 2170, Day 2177, Day 2184, Day 2191, Day 2198, Day 2205, Day 2212, Day 2219, Day 2226, Day 2233, Day 2240, Day 2247, Day 2254, Day 2261, Day 2268, Day 2275, Day 2282, Day 2289, Day 2296, Day 2303, Day 2310, Day 2317, Day 2324, Day 2331, Day 2338, Day 2345, Day 2352, Day 2359, Day 2366, Day 2373, Day 2380, Day 2387, Day 2394, Day 2401, Day 2408, Day 2415, Day 2422, Day 2429, Day 2436, Day 2443, Day 2450, Day 2457, Day 2464, Day 2471, Day 2478, Day 2485, Day 2492, Day 2499, Day 2506, Day 2513, Day 2520, Day 2527, Day 2534, Day 2541, Day 2548, Day 2555, Day 2562, Day 2569, Day 2576, Day 2583, Day 2590, Day 2597, Day 2604, Day 2611, Day 2618, Day 2625, Day 2632, Day 2639, Day 2646, Day 2653, Day 2660, Day 2667, Day 2674, Day 2681, Day 2688, Day 2695, Day 2702, Day 2709, Day 2716, Day 2723, Day 2730, Day 2737, Day 2744, Day 2751, Day 2758, Day 2765, Day 2772, Day 2779, Day 2786, Day 2793, Day 2800, Day 2807, Day 2814, Day 2821, Day 2828, Day 2835, Day 2842, Day 2849, Day 2856, Day 2863, Day 2870, Day 2877, Day 2884, Day 2891, Day 2898, Day 2905, Day 2912, Day 2919, Day 2926, Day 2933, Day 2940, Day 2947, Day 2954, Day 2961, Day 2968, Day 2975, Day 2982, Day 2989, Day 2996, Day 3003, Day 3010, Day 3017, Day 3024, Day 3031, Day 3038, Day 3045, Day 3052, Day 3059, Day 3066, Day 3073, Day 3080, Day 3087, Day 3094, Day 3101, Day 3108, Day 3115, Day 3122, Day 3129, Day 3136, Day 3143, Day 3150, Day 3157, Day 3164, Day 3171, Day 3178, Day 3185, Day 3192, Day 3199, Day 3206, Day 3213, Day 3220, Day 3227, Day 3234, Day 3241, Day 3248, Day 3255, Day 3262, Day 3269, Day 3276, Day 3283, Day 3290, Day 3297, Day 3304, Day 3311, Day 3318, Day 3325, Day 3332, Day 3339, Day 3346, Day 3353, Day 3360, Day 3367, Day 3374, Day 3381, Day 3388, Day 3395, Day 3402, Day 3409, Day 3416, Day 3423, Day 3430, Day 3437, Day 3444, Day 3451, Day 3458, Day 3465, Day 3472, Day 3479, Day 3486, Day 3493, Day 3500, Day 3507, Day 3514, Day 3521, Day 3528, Day 3535, Day 3542, Day 3549, Day 3556, Day 3563, Day 3570, Day 3577, Day 3584, Day 3591, Day 3598, Day 3605, Day 3612, Day 3619, Day 3626, Day 3633, Day 3640, Day 3647, Day 3654, Day 3661, Day 3668, Day 3675, Day 3682, Day 3689, Day 3696, Day 3703, Day 3710, Day 3717, Day 3724, Day 3731, Day 3738, Day 3745, Day 3752, Day 3759, Day 3766, Day 3773, Day 3780, Day 3787, Day 3794, Day 3801, Day 3808, Day 3815, Day 3822, Day 3829, Day 3836, Day 3843, Day 3850, Day 3857, Day 3864, Day 3871, Day 3878, Day 3885, Day 3892, Day 3899, Day 3906, Day 3913, Day 3920, Day 3927, Day 3934, Day 3941, Day 3948, Day 3955, Day 3962, Day 3969, Day 3976, Day 3983, Day 3990, Day 3997, Day 4004, Day 4011, Day 4018, Day 4025, Day 4032, Day 4039, Day 4046, Day 4053, Day 4060, Day 4067, Day 4074, Day 4081, Day 4088, Day 4095, Day 4102, Day 4109, Day 4116, Day 4123, Day 4130, Day 4137, Day 4144, Day 4151, Day 4158, Day 4165, Day 4172, Day 4179, Day 4186, Day 4193, Day 4200, Day 4207, Day 4214, Day 4221, Day 4228, Day 4235, Day 4242, Day 4249, Day 4256, Day 4263, Day 4270, Day 4277, Day 4284, Day 4291, Day 4298, Day 4305, Day 4312, Day 4319, Day 4326, Day 4333, Day 4340, Day 4347, Day 4354, Day 4361, Day 4368, Day 4375, Day 4382, Day 4389, Day 4396, Day 4403, Day 4410, Day 4417, Day 4424, Day 4431, Day 4438, Day 4445, Day 4452, Day 4459, Day 4466, Day 4473, Day 4480, Day 4487, Day 4494, Day 4501, Day 4508, Day 4515, Day 4522, Day 4529, Day 4536, Day 4543, Day 4550, Day 4557, Day 4564, Day 4571, Day 4578, Day 4585, Day 4592, Day 4599, Day 4606, Day 4613, Day 4620, Day 4627, Day 4634, Day 4641, Day 4648, Day 4655, Day 4662, Day 4669, Day 4676, Day 4683, Day 4690, Day 4697, Day 4704, Day 4711, Day 4718, Day 4725, Day 4732, Day 4739, Day 4746, Day 4753, Day 4760, Day 4767, Day 4774, Day 4781, Day 4788, Day 4795, Day 4802, Day 4809, Day 4816, Day 4823, Day 4830, Day 4837, Day 4844, Day 4851, Day 4858, Day 4865, Day 4872, Day 4879, Day 4886, Day 4893, Day 4900, Day 4907, Day 4914, Day 4921, Day 4928, Day 4935, Day 4942, Day 4949, Day 4956, Day 4963, Day 4970, Day 4977, Day 4984, Day 4991, Day 4998, Day 5005, Day 5012, Day 5019, Day 5026, Day 5033, Day 5040, Day 5047, Day 5054, Day 5061, Day 5068, Day 5075, Day 5082, Day 5089, Day 5096, Day 5103, Day 5110, Day 5117, Day 5124, Day 5131, Day 5138, Day 5145, Day 5152, Day 5159, Day 5166, Day 5173, Day 5180, Day 5187, Day 5194, Day 5201, Day 5208, Day 5215, Day 5222, Day 5229, Day 5236, Day 5243, Day 5250, Day 5257, Day 5264, Day 5271, Day 5278, Day 5285, Day 5292, Day 5299, Day 5306, Day 5313, Day 5320, Day 5327, Day 5334, Day 5341, Day 5348, Day 5355, Day 5362, Day 5369, Day 5376, Day 5383, Day 5390, Day 5397, Day 5404, Day 5411, Day 5418, Day 5425, Day 5432, Day 5439, Day 5446, Day 5453, Day 5460, Day 5467, Day 5474, Day 5481, Day 5488, Day 5495, Day 5502, Day 5509, Day 5516, Day 5523, Day 5530, Day 5537, Day 5544, Day 5551, Day 5558, Day 5565, Day 5572, Day 5579, Day 5586, Day 5593, Day 5600, Day 5607, Day 5614, Day 5621, Day 5628, Day 5635, Day 5642, Day 5649, Day 5656, Day 5663, Day 5670, Day 5677, Day 5684, Day 5691, Day 5698, Day 5705, Day 5712, Day 5719, Day 5726, Day 5733, Day 5740, Day 5747, Day 5754, Day 5761, Day 5768, Day 5775, Day 5782, Day 5789, Day 5796, Day 5803, Day 5810, Day 5817, Day 5824, Day 5831, Day 5838, Day 5845, Day 5852, Day 5859, Day 5866, Day 5873, Day 5880, Day 5887, Day 5894, Day 5901, Day 5908, Day 5915, Day 5922, Day 5929, Day 5936, Day 5943, Day 5950, Day 5957, Day 5964, Day 5971, Day 5978, Day 5985, Day 5992, Day 5999, Day 6006, Day 6013, Day 6020, Day 6027, Day 6034, Day 6041, Day 6048, Day 6055, Day 6062, Day 6069, Day 6076, Day 6083, Day 6090, Day 6097, Day 6104, Day 6111, Day 6118, Day 6125, Day 6132, Day 6139, Day 6146, Day 6153, Day 6160, Day 6167, Day 6174, Day 6181, Day 6188, Day 6195, Day 6202, Day 6209, Day 6216, Day 6223, Day 6230, Day 6237, Day 6244, Day 6251, Day 6258, Day 6265, Day 6272, Day 6279, Day 6286, Day 6293, Day 6300, Day 6307, Day 6314, Day 6321, Day 6328, Day 6335, Day 6342, Day 6349, Day 6356, Day 6363, Day 6370, Day 6377, Day 6384, Day 6391, Day 6398, Day 6405, Day 6412, Day 6419, Day 6426, Day 6433, Day 6440, Day 6447, Day 6454, Day 6461, Day 6468, Day 6475, Day 6482, Day 6489, Day 6496, Day 6503, Day 6510, Day 6517, Day 6524, Day 6531, Day 6538, Day 6545, Day 6552, Day 6559, Day 6566, Day 6573, Day 6580, Day 6587, Day 6594, Day 6601, Day 6608, Day 6615, Day 6622, Day 6629, Day 6636, Day 6643, Day 6650, Day 6657, Day 6664, Day 6671, Day 6678, Day 6685, Day 6692, Day 6699, Day 6706, Day 6713, Day 6720, Day 6727, Day 6734, Day 6741, Day 6748, Day 6755, Day 6762, Day 6769, Day 6776, Day 6783, Day 6790, Day 6797, Day 6804, Day 6811, Day 6818, Day 6825, Day 6832, Day 6839, Day 6846, Day 6853, Day 6860, Day 6867, Day 6874, Day 6881, Day 6888, Day 6895, Day 6902, Day 6909, Day 6916, Day 6923, Day 6930, Day 6937, Day 6944, Day 6951, Day 6958, Day 6965, Day 6972, Day 6979, Day 6986, Day 6993, Day 7000, Day 7007, Day 7014, Day 7021, Day 7028, Day 7035, Day 7042, Day 7049, Day 7056, Day 7063, Day 7070, Day 7077, Day 7084, Day 7091, Day 7098, Day 7105, Day 7112, Day 7119, Day 7126, Day 7133, Day 7140, Day 7147, Day 7154, Day 7161, Day 7168, Day 7175, Day 7182, Day 7189, Day 7196, Day 7203, Day 7210, Day 7217, Day 7224, Day 7231, Day 7238, Day 7245, Day 7252, Day 7259, Day 7266, Day 7273, Day 7280, Day 7287, Day 7294, Day 7301, Day 7308, Day 7315, Day 7322, Day 7329, Day 7336, Day 7343, Day 7350, Day 7357, Day 7364, Day 7371, Day 7378, Day 7385, Day 7392, Day 7399, Day 7406, Day 7413, Day 7420, Day 7427, Day 7434, Day 7441, Day 7448, Day 7455, Day 7462, Day 7469, Day 7476, Day 7483, Day 7490, Day 7497, Day 7504, Day 7511, Day 7518, Day 7525, Day 7532, Day 7539, Day 7546, Day 7553, Day 7560, Day 7567, Day 7574, Day 7581, Day 7588, Day 7595, Day 7602, Day 7609, Day 7616, Day 7623, Day 7630, Day 7637, Day 7644, Day 7651, Day 7658, Day 7665, Day 7672, Day 7679, Day 7686, Day 7693, Day 7700, Day 7707, Day 7714, Day 7721, Day 7728, Day 7735, Day 7742, Day 7749, Day 7756, Day 7763, Day 7770, Day 7777, Day 7784, Day 7791, Day 7798, Day 7805, Day 7812, Day 7819, Day 7826, Day 7833, Day 7840, Day 7847, Day 7854, Day 7861, Day 7868, Day 7875, Day 7882, Day 7889, Day 7896, Day 7903, Day 7910, Day 7917, Day 7924, Day 7931, Day 7938, Day 7945, Day 7952, Day 7959, Day 7966, Day 7973, Day 7980, Day 7987, Day 7994, Day 8001, Day 8008, Day 8015, Day 8022, Day 8029, Day 8036, Day 8043, Day 8050, Day 8057, Day 8064, Day 8071, Day 8078, Day 8085, Day 8092, Day 8099, Day 8106, Day 8113, Day 8120, Day 8127, Day 8134, Day 8141, Day 8148, Day 8155, Day 8162, Day 8169, Day 8176, Day 8183, Day 8190, Day 8197, Day 8204, Day 8211, Day 8218, Day 8225, Day 8232, Day 8239, Day 8246, Day 8253, Day 8260, Day 8267, Day 8274, Day 8281, Day 8288, Day 8295, Day 8302, Day 8309, Day 8316, Day 8323, Day 8330, Day 8337, Day 8344, Day 8351, Day 8358, Day 8365, Day 8372, Day 8379, Day 8386, Day 8393, Day 8400, Day 8407, Day 8414, Day 8421, Day 8428, Day 8435, Day 8442, Day 8449, Day 8456, Day 8463, Day 8470, Day 8477, Day 8484, Day 8491, Day 8498, Day 8505, Day 8512, Day 8519, Day 8526, Day 8533, Day 8540, Day 8547, Day 8554, Day 8561, Day 8568, Day 8575, Day 8582, Day 8589, Day 8596, Day 8603, Day 8610, Day 8617, Day 8624, Day 8631, Day 8638, Day 8645, Day 8652, Day 8659, Day 8666, Day 8673, Day 8680, Day 8687, Day 8694, Day 8701, Day 8708, Day 8715, Day 8722, Day 8729, Day 8736, Day 8743, Day 8750, Day 8757, Day 8764, Day 8771, Day 8778, Day 8785, Day 8792, Day 8799, Day 8806, Day 8813, Day 8820, Day 8827, Day 8834, Day 8841, Day 8848, Day 8855, Day 8862, Day 8869, Day 8876, Day 8883, Day 8890, Day 8897, Day 8904, Day 8911, Day 8918, Day 8925, Day 8932, Day 8939, Day 8946, Day 8953, Day 8960, Day 8967, Day 8974, Day 8981, Day 8988, Day 8995, Day 9002, Day 9009, Day 9016, Day 9023, Day 9030, Day 9037, Day 9044, Day 9051, Day 9058, Day 9065, Day 9072, Day 9079, Day 9086, Day 9093, Day 9100, Day 9107, Day 9114, Day 9121, Day 9128, Day 9135, Day 9142, Day 9149, Day 9156, Day 9163, Day 9170, Day 9177, Day 9184, Day 9191, Day 9198, Day 9205, Day 9212, Day 9219, Day 9226, Day 9233, Day 9240, Day 9247, Day 9254, Day 9261, Day 9268, Day 9275, Day 9282, Day 9289, Day 9296, Day 9303, Day 9310, Day 9317, Day 9324, Day 9331, Day 9338, Day 9345, Day 9352, Day 9359, Day 9366, Day 9373, Day 9380, Day 9387, Day 9394, Day 9401, Day 9408, Day 9415, Day 9422, Day 9429, Day 9436, Day 9443, Day 9450, Day 9457, Day 9464, Day 9471, Day 9478, Day 9485, Day 9492, Day 9499, Day 9506, Day 9513, Day 9520, Day 9527, Day 9534, Day 9541, Day 9548, Day 9555, Day 9562, Day 9569, Day 9576, Day 9583, Day 9590, Day 9597, Day 9604, Day 9611, Day 9618, Day 9625, Day 9632, Day 9639, Day 9646, Day 9653, Day 9660, Day 9667, Day 9674, Day 9681, Day 9688, Day 9695, Day 9702, Day 9709, Day 9716, Day 9723, Day 9730, Day 9737, Day 9744, Day 9751, Day 9758, Day 9765, Day 9772, Day 9779, Day 9786, Day 9793, Day 9800, Day 9807, Day 9814, Day 9821, Day 9828, Day 9835, Day 9842, Day 9849, Day 9856, Day 9863, Day 9870, Day 9877, Day 9884, Day 9891, Day 9898, Day 9905, Day 9912, Day 9919, Day 9926, Day 9933, Day 9940, Day 9947, Day 9954, Day 9961, Day 9968, Day 9975, Day 9982, Day 9989, Day 9996, Day 10003, Day 10010, Day 10017, Day 10024, Day 10031, Day 10038, Day 10045, Day 10052, Day 10059, Day 10066, Day 10073, Day 10080, Day 10087, Day 10094, Day 10101, Day 10108, Day 10115, Day 10122, Day 10129, Day 10136, Day 10143, Day 10150, Day 10157, Day 10164, Day 10171, Day 10178, Day 10185, Day 10192, Day 10199, Day 10206, Day 10213, Day 10220, Day 10227, Day 10234, Day 10241, Day 10248, Day 10255, Day 10262, Day 10269, Day 10276, Day 10283, Day 10290, Day 10297, Day 10304, Day 10311, Day 10318, Day 10325, Day 10332, Day 10339, Day 10346, Day 10353, Day 10360, Day 10367, Day 10374, Day 10381, Day 10388, Day 10395, Day 10402, Day 10409, Day 10416, Day 10423, Day 10430, Day 10437, Day 10444, Day 10451, Day 10458, Day 10465, Day 10472, Day 10479, Day 10486, Day 10493, Day 10500, Day 10507, Day 10514, Day 10521, Day 10528, Day 10535, Day 10542, Day 10549, Day 10556, Day 10563, Day 10570, Day 10577, Day 10584, Day 10591, Day 10598, Day 10605, Day 10612, Day 10619, Day 10626, Day 10633, Day 10640, Day 10647, Day 10654, Day 10661, Day 10668, Day 10675, Day 10682, Day 10689, Day 10696, Day 10703, Day 10710, Day 10717, Day 10724, Day 10731, Day 10738, Day 10745, Day 10752, Day 10759, Day 10766, Day 10773, Day 10780, Day 10787, Day 10794, Day 10801, Day 10808, Day 10815, Day 10822, Day 10829, Day 10836, Day 10843, Day 10850, Day 10857, Day 10864, Day 10871, Day 10878, Day 10885, Day 10892, Day 10899, Day 10906, Day 10913, Day 10920, Day 10927, Day 10934, Day 10941, Day 10948, Day 10955, Day 10962, Day 10969, Day 10976, Day 10983, Day 10990, Day 10997, Day 11004, Day 11011, Day 11018, Day 11025, Day 11032, Day 11039, Day 11046, Day 11053, Day 11060, Day 11067, Day 11074, Day 11081, Day 11088, Day 11095, Day 11102, Day 11109, Day 11116, Day 11123, Day 11130, Day 11137, Day 11144, Day 11151, Day 11158, Day 11165, Day 11172, Day 11179, Day 11186, Day 11193, Day 11200, Day 11207, Day 11214, Day 11221, Day 11228, Day 11235, Day 11242, Day 11249, Day 11256, Day 11263, Day 11270, Day 11277, Day 11284, Day 11291, Day 11298, Day 11305, Day 11312, Day 11319, Day 11326, Day 11333, Day 11340, Day 11347, Day 11354, Day 11361, Day 11368, Day 11375, Day 11382, Day 11389, Day 11396, Day 11403, Day 11410, Day 11417, Day 11424, Day 11431, Day 11438, Day 11445, Day 11452, Day 11459, Day 11466, Day 11473, Day 11480, Day 11487, Day 11494, Day 11501, Day 11508, Day 11515, Day 11522, Day 11529, Day 11536, Day 11543, Day 11550, Day 11557, Day 11564, Day 11571, Day 11578, Day 11585, Day 11592, Day 11599, Day 11606, Day 11613, Day 11620, Day 11627, Day 11634, Day 11641, Day 11648, Day 11655, Day 11662, Day 11669, Day 11676, Day 11683, Day 11690, Day 11697, Day 11704, Day 11711, Day 11718, Day 11725, Day 11732, Day 11739, Day 11746, Day 11753, Day 11760, Day 11767, Day 11774, Day 11781, Day 11788, Day 11795, Day 11802, Day 11809, Day 11816, Day 11823, Day 11830, Day 11837, Day 11844, Day 11851, Day 11858, Day 11865, Day 11872, Day 11879, Day 11886, Day 11893, Day 11900, Day 11907, Day 11914, Day 11921, Day 11928, Day 11935, Day 11942, Day 11949, Day 11956, Day 11963, Day 11970, Day 11977, Day 11984, Day 11991, Day 11998, Day 12005, Day 1201
--	--	--



	<p>failure), respiratory gastrointestinal, Hematological or immune disorders.</p> <p>6. Past history of / current allergic diseases.</p> <p>7. Any confirmed or suspected immunodeficient condition</p> <p>8. Use of any marketed or investigational non registered drug or vaccine for JE or past 2 months.</p> <p>9. Clinically relevant abnormal hematology or b the opinion of the investigator.</p> <p>10 Any criteria, which in the opinion of the inves the subject would not be compliant with the stu</p> <p>11 Intention to travel out of the area prior to final Visit on day 562.</p> <p>12 Previous history of hypersensitive reaction to Vaccine component.</p>	<p>Hepatic</p>
<p>Test Vaccine</p>	<p>The JE vaccine (BBILS) is purified inactivated vaccine, containing clinical case of JE infection from an endemic area in India. The strain cells. The vaccine was prepared by purification and inactivation pro Good Manufacturing Practices.</p>	
<p>Reference Vaccine</p>	<p>The SA 14-14-2 is a Live, attenuated Japanese encephalitis vaccine produced by Chengdu Institute of Biological products (CDIBP), Ch</p>	



Dose, Dosage and route of administration

Test vaccine: Liquid 0.5 mL of Test Vaccine will be injected as two doses on day 0 and day 282 by Intramuscular route.

Reference vaccine: Lyophilized Reference Vaccine 0.5mL will be supplied with the diluent supplied as one dose on day 0 and second dose will be given on day 282 by subcutaneous route.

Subjects will receive either cell culture Inactivated Japanese encephalitis vaccine (5g protein) or Reference vaccine as per randomization.

Endpoints

Primary

Proportion of participants achieving a neutralizing antibody titer in subjects seropositive at day 282 (≥1:10) at day 282 after a single dose of vaccine.

Proportion of participants that require a PRNT₅₀ titer of ≥1:10 at baseline (<1:10) will require a PRNT₅₀ titer of ≥1:10 at day 282 after a single dose of vaccine..

- GMT in each group on day 0 and day 282.

Secondary

Occurrence of solicited and unsolicited systemic AEs within 28 days and 56 days of day 0, 282 and 562.



		<p>Occurrence of vaccine-associated adverse events during the course of the study.</p> <p>Proportion of participants achieving 4-fold or higher titer at day 562 after two doses of vaccination.</p>	
	<p>Statistical Analysis Plan</p>	<p>The statistical analysis will be performed by the Indian Statistical Institute (ISI), Hyderabad. The data center would be collected by representatives of the center at the site.</p> <p>Data analysis would be carried out separately for each group based on the size and age as mentioned above.</p> <p>The test used for evaluation would be as follows:</p> <ol style="list-style-type: none">1. Comparisons of the proportion of subjects in the groups shall be made with the use of Chi-square with Yates correction2. The differences in the distribution of adverse events shall be tested with the use of the Kolmogorov-Smirnov test3. The Adverse Reactions between groups shall be tested with Chi-square or Fisher exact test. The 95% CI shall be calculated for median values. <p>Immunogenicity was analyzed with the endpoints (95% Confidence intervals) used by regulatory authorities for Japanese encephalitis vaccine. These endpoints are:</p> <p>Seroconversion (Four-fold rise in titer compared to pre-vaccination titers).</p>	



		Seroprotection (?1:10, which is d seroprotective threshold)	
		Geometric Mean Titer rise (geom subject ratios of post-vaccination reciprocal t to the Day 0 reciprocal titer)	
	Data Documenting		Case Report Forms and Subject Diary Cards