

**Notice Inviting e-Tender**  
**West Bengal Medical Services Corporation Limited**  
**Swasthya Bhawan Complex**  
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**Kolkata-700091**

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SUPPLY OF SYRINGE PUMP IN THE HOSPITALS AND MEDICAL COLLEGES OF THE  
GOVERNMENT OF WEST BENGAL.

(Submission of Bid through *online*)

Bid Reference No.: WBMSCL/NIT-53/2014	Dated-08.08.2014
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The following amendment have been made in the tender document,

**Amendment - IV**

**REVISED TECHNICAL SPECIFICATION**

**Syringe Pump**

**A. Essential**

1. Microprocessor controlled pump capable of propulsion of fluids accurately.
2. Syringe compatibility: The pump should work with different brands of syringes and is able to accept syringes with volumes of 10 ml – 50 ml.
3. There should be automatic detection of syringe size.
4. It should be equipped for detecting correct fixing of syringe.
5. Flow rate should be adjustable from 0.1 ml/hr to 1000 ml/hr.
6. Flow rate should be adjustable in increments of 0.1 ml/hr.
7. Flow rate adjustment should not involve stopping of the existing infusion rate.
8. The accuracy of flow rate should be  $\pm 2\%$ .

9. The flow rate should be displayed in ml/ hr. Delivery rate can be calculated automatically by pre-setting of volume & time. It should also accept values in mg/ hr,  $\mu$ g/ hr, mg/ kg/ hr etc.
10. It should be able to deliver bolus dose in automatic/ manual mode.
11. Pump should have commonly used drugs library of 40 or more.
12. It should work on 200 – 240 VAC, 50 Hz source and in-built rechargeable battery.
13. Internal battery life should be minimum of 6 hrs when fully charged.
14. Pump should have LED/ LCD display.
15. The following audio and visual alarms should be incorporated:
  - a) Main changeover to battery indication
  - b) Occlusion pressure alarm
  - c) Near empty syringe
  - d) Low battery
  - e) Standby alarm
16. There should be a method of automatic bolus volume reduction after occlusion release.
17. The pump should be waterproof so that fluid should not enter inside the pump in case of accidental spillage.
18. The syringe pumps should be capable of standalone functioning as well as being fixed on a frame/platform/stand.
19. Power cord should not be less than 3 meters in length.
20. Cost of all accessories and spares including the cost of rechargeable battery should be mentioned in form 10 (a) & 10 (b) separately.
21. **Standards, Safety and Training**
  - i). The medical device should be ISO certified manufacture (Certificate to be submitted) and it should be CE or US FDA approved (Certificate to be submitted).

- ii). It should **have onsite service facility**. The service provider should have necessary equipments recommended by the manufacturer to carryout preventive maintenance test as per guidelines provided in the service/ maintenance manual.
- iii). Warranty for 5 years and 5 years CMC after warranty.

**B. Desirables (*Qualifying marks in Desirable is 60*)**

SL. No.	Variables	Characteristics	Points
1	Compatibility with small volume of syringe (in ml)	< 10	10
		10	5
2	Minimum flow rate (ml/ hr)	<0.05	15
		≥0.05 to <0.1	10
		0.1	5
3	Maximum flow rate (ml/ hr)	≥ 1500	10
		≥ 1200 to < 1500	5
		> 1000 to < 1200	1
4	Flow rate increment (< 100 ml) in ml/ hr	<0.1	15
		≥0.1	5
5	Accuracy of set delivery rate	≤ ±1%	10
		≤ ±2% to > ±1%	5
6	Setting of alarm for occlusion pressure	Variable	10
		Fixed	1
7	Internal battery backup @ 20 ml/ hr	≥ 15 hrs	10
		≥ 10 hrs to < 15 hrs	5
		≥ 6 hrs to < 10 hrs	1
8	Bolus rate (ml/ hr)	> 1500	10
		1000 - 1500	5
		< 1000	1
9	Setting of KVO mode	Available	10
		Not available	1
Total			100