

The true costs of insulin pumps commonly used in Royal Devon and Exeter

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INTRODUCTION

Continuous subcutaneous insulin infusion devices, commonly known as insulin pumps, have expanded the treatment options of insulin treated Diabetes Mellitus especially type 1. There are currently different types of insulin pumps available on the market. Predictably, these devices present differences in terms of additional features and costs. With limited NHS resources, cost of treatments need to be balanced with clinical benefits and it is an important factor when selecting the types of pumps offered. When considering the cost of insulin pumps both the cost of the pump and the consumables must be taken into account

OBJECTIVE

The objective of this audit was to compare the actual costs of pump consumables with the quoted cost given by two suppliers (Medtronic and Roche) used by the Royal Devon and Exeter Hospital (RDE).

METHOD

- Pump consumables invoices were reviewed from December 2018 to May 2019 and the average monthly cost of consumable calculated for each patient.
- Data was collected for 193 patients (105 Medtronic and 88 Roche).

RESULTS

Pumps		with discount (£)	Monthly (£)	yearly (£)	4 years (£)
Medtronic	Pump price (upto May 2019)	2800	58.3	700	2800
	quoted consumables prices (monthly)	120.6			
	actual prices (average based on 6 months)		155.45	1,865.4	7,461.6
	cost (pump+consumables)		213.75	2,565	10,261.6
Roche	Pump price (Combo and Insight)	2098.8	43.7	524.7	2,098.8
	quoted consumables (Combo)(monthly)	92.1			
	quoted consumables (Insight)(monthly)	77.9			
	actual prices (monthly based on 6months)		95.8	1,149	4,596
	cost (pump+consumables)		139.5	1,673.7	6,694.8
	difference between Roche and Medtronic costs			74.3	891.3

CONCLUSION

If all patients on the insulin pumps at the RDE were converted to the less expensive pump option, a potential saving of £93,586 (891.3 x 105) a year would be made.

The cost of insulin pumps and consumables is one of the many factors considered in selecting which pump to use. There are other factors to consider such as compatibility with continuous glucose monitoring, treating clinician experience and specific patient requirements that are important. However, where there is no clear clinical benefit of one pump over another, the overall cost of the pumps we offer should be taken into account.

There needs to be a frequent review of pump costs and clinical outcomes due to the current pace of technology improvements.

There are no audits comparing the actual costs of using an insulin pump versus the quoted costs. It would be interesting to find out what are the actual costs in other healthcare settings treating patients on insulin pumps.