



# Effect of intravenous iron sucrose on hemoglobin level to moderately anemic pregnant women

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## Introduction

- Intravenous iron sucrose (IVIS) therapy is a newly introduced service component for combating moderate anaemia in pregnant women by Haryana state as a public-health measure from year 2014.
- Early detection and proper management of iron deficiency anemia can lead to substantial reduction in maternal mortality ratio and infant mortality rate.<sup>1,2</sup>
- Intravenous iron sucrose which is used to treat anemia due to chronic renal failure in the USA from decades has very less side effects.<sup>3</sup>

## Objectives

The aim of this study was to assess the effectiveness of IVIS in terms of the change in Hb level among anemic pregnant women receiving the said therapy in primary care setting.

## Methodology

**Study Design:** Prospective study

**Study setting:** Randomly selected rural Primary Health Center (PHC) of Nuh district

**Study population:** Moderately anaemic females visiting the rural Primary Health Center (PHC) for seeking care.

One hundred and thirty eight moderately anaemic females were given the standard form of IVIS therapy. All pregnant females were motivated to come for follow-up measurement of Hb level any time after 2 and 4 weeks of the last infusion of IVIS.

## Results

- Of total 154 anaemic pregnant women, 138 (89.6%) were diagnosed to have moderate anaemia.
- The number of pregnant women with moderate anemia declined from 138 to 54, (54.54% reduction) when measured at the end of 4 weeks (end line).

**Table 1: Proportional change at various intervals among moderately anaemic pregnant women**

Time line	Moderately anaemic pregnant women n (%)	Proportional change
0 weeks (Baseline)	138 (89.6%)	37.65%
At the end of 2 weeks (Mid term)	80 (51.95%)	16.89%
At the end of 4 weeks (End line)	54 (35.06%)	54.54%

**Table 2: Mean values of haemoglobin levels of anaemic pregnant women during the course of IVIS therapy**

Mean values of Hb	0 weeks (Baseline)			At the end of 2 weeks (Mid term)			At the end of 4 weeks (End line)		
	Mean	SD	95%CI	Mean	SD	95%CI	Mean	SD	95%CI
Total (overall)	7.78	0.72	7.70, 7.84	8.66	0.95	8.59, 8.74	9.93	1.15	9.76, 10.02
Moderate anemia	7.98	0.88	7.74, 8.01	8.52	1.03	8.43, 8.59	9.60	1.22	9.51, 9.70

## Conclusion

- The mean rise in Hb level among moderately anaemic pregnant women was 1.62 g/dL among participants received IVIS therapy in primary care setting of a underprivileged area of Haryana state. Those having severe anaemia achieved better rise on Hb levels.

## References

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