

The influence of gestational gain weight in di-amniotic twin pregnancy

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Institute Of Medicine defined *BMI related gestational weight gain cut off* in singleton and in twin pregnancies

IOM CUTS off (gestational age at delivery ≥ 37 weeks)

- No raccomandation for **BMI < 18,5**
 - **BMI 18,5-24,9**
 - **BMI 25-29,9**
 - **BMI ≥ 30**
- } normal increment
- 17 - 25 kg**
 - 14 - 23 kg**
 - 11 - 19 kg**

Objective

We want to value in **twin pregnancies**
the influence of
under, normal or over weight gain (IOM cut off)
in the development of:

PRETERM DELIVERY (PD)

SMALL FOR GESTATIONAL AGE (SGA)

HYPERTENSIVE GESTATIONAL DISEASE (HGD)

Materials and Methods

Retrospective cohort study

Inclusion criteria

- Di-amniotic twin pregnancies
- GA at delivery $\geq 28+0$ wks
- Spontaneous labour

Exclusion criteria

- Intrauterine demise
- Malformation
- TTTS

3 study groups (compared to IOM cut off) :

Under weight gain

Normal weight gain

Over weight gain

if gestational age at delivery < 37 weeks we used a weekly gestational weight gain (total gain/delivery wks) and compared it to IOM hypothesized weekly cut off (IOM total cut off/37 wks)

Statistical analysis included Fisher's test ($p < 0.05$ significant)

Results

175 pregnancies

**3 groups: 91 under
73 normal
11 over**

weight gain compare to IOM curves

	Under gain weight (n 91)	Normal gain weight (n 73)	Over gain weight (n 11)	Fisher P-value	RR (95% CI)
Hypertensive pregnancy diseases	7 (7.7%)	13 (17.8%)	7 (63.6%)	*0.057 °0.003	*0.43 (0.18-1.02) °3.57 (1.84-6.95)
Preterm delivery (< 34 wks)	23 (25.3%)	5 (6.8%)	3 (27.3%)	*0.002 °0.066	*3.69 (1.48-9.23) °3.98 (1.10-14.37)
At least one twin SGA	40 (44.0%)	31 (42.5%)	3 (27.3%)	*0.875 °0.513	*1.03 (0.73-1.47) °0.64 (0.24-1.75)
Both twins SGA	12 (13.2%)	5 (6.8%)	1 (9.0%)	*0.209 °0.581	*1.93 (0.71-5.22) °1.33 (0.17-10.32)

* under vs normal weight gain ° over vs normal weight gain

HYPERTENSIVE PREGNANCY DISORDERS

Under gain weight → **lower** incidence **VS** normal

Over gain weight → **high** risk **VS** normal ones

PRETERM DELIVERY

Normal gain weight → **reduction** of preterm delivery compared to **under and over** gain

SMALL FOR GESTATIONAL AGE

No differences were found for SGA in the three study groups

**IOM normal weight gain cut off is
protective for both HGD and PD also in twin
pregnancies as demonstrated in singleton**



What is new in our data?



In literature: few information about gain weight in twin pregnancies

→ we try to define if IOM curves cuts off could be adequate

We value different outcomes which were inversely related to gain weight and BMI so we can define these cuts off adequate

How can colleagues use our results in clinical practice?

Also in twin pregnancies we must advise
a range of gain weight

→ Support adequate diets

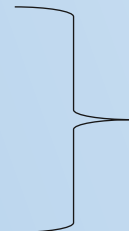
IOM CUTS off (gestational age at delivery ≥ 37 weeks)

- No recommendation for **BMI < 18,5**

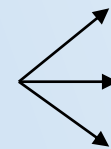
- **BMI 18,5-24,9**

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- **BMI ≥ 30**



normal increment



17 - 25 kg

14 - 23 kg

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And... for the future?

Collaboration with nutritionist → creation of presonalized diets for normal, overweight and obese women

ITALIAN cuts off



Any questions?



Thanks for your attention!