# A 10-Year Retrospective Analysis of Molar Pregnancy and Related Gestational Neoplasia at a Specialised Centre

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## Introduction

In NSW there is no gestational trophoblastic diseases (GTD) registry as there is in other Australian states. A registry ensures best-practice guidelines are followed, data is collected for research, and expertise is readily available for complex cases.

In the absence of a state-wide registry, since 2014 our NSW metropolitan-located Gynae-Oncology unit has a dedicated GTD service managed by a Nurse Practitioner and Gynae-Oncologist, the purpose of which is to provide standardised expert care.

## Objectives

The overall goal was to obtain information regarding the functioning of our service as well as to inform expectations for women newly diagnosed with a molar pregnancy

## Results

| Type of molar pregnancy | Average age (years) | Referral location | Progression to GTN |
|---|---|---|---|
| **Partial molar *(n=78)*** | 33 | Local Tertiary Hospital = 68<br>Private Gynaecologist = 7<br>Outside of LHD[1] = 3 | 5 / 78 (6.4%) |
| **Complete molar *(n=99)*** | 35 | Local Tertiary Hospital = 80<br>Private Specialist = 10<br>Outside of LHD[1] = 9 | 23 / 99 (24%) |

*Age, referral location and progression x type of molar pregnancy*

| | Molar pregnancy | Molar pregnancy progressing to GTN | Statistical significance |
|---|---|---|---|
| **Average bHCG level (IU/mL) at time of curettage *(n=86)*** | 129,858 (n=67) | 266,417 (n=19) | P=0.02 |
| **Average age (years) *(n=168)*** | 34 (n=140) | 36 (n=28) | P=0.5 |

*Average age and bHCG at time of curette and risk of progression to gestational neoplasia.*

| | WHO Score | FIGO Stage | Chemotherapy type | Survival |
|---|---|---|---|---|
| **GTN treated with chemotherapy (n=27)** | 0-6 = 26<br>≥7 = 1 | I = 23<br>II = 0<br>III = 4 | First line = 22:<br>- Methotrexate = 20<br>- EMA-CO[4] = 1<br>- Actinomycin-D = 1<br>Second line = 5:<br>- Actinomycin-D = 4<br>- EMA-CO = 1 | 100% |

*Characteristics of patients diagnosed with GTN*

## Methods

A retrospective review of electronic medical records spanning ten years (01/01/2014 to 01/01/2024) was conducted for women with molar pregnancies and molar-pregnancy-associated GTN at the specialised centre. Data were securely stored in REDCap.

## Conclusions

The centre achieved commendable performance indicators, including completion rates and timely initiation of chemotherapy.

Higher bHCG levels at the time of curettage diagnosis correlated with a higher risk of GTN progression.

The study underscores the importance of collaborative efforts and the creation of a state-based registry in NSW to facilitate future research on surveillance de-escalation and optimal chemotherapy regimens for intermediate-risk GTN.

***"The study highlights the importance of collaborative efforts and the creation of a state-based GTD registry in NSW..."***

## References

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