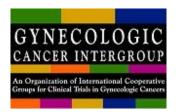


- Tunisian Health System: Social Welfare with a Public insurance for all citizens including Indigent persons. (± Additional private insurance)
- Choice: Public Hospital/Private Clinics (Indigents \rightarrow Public H)
- National Drug Administration
 - ✓ Registration for definitive Approval: one or several diseases / uses
 - ✓ Case by case Approval: Drugs with no current Registration → Approval with restrictions to a person, in a specific use and limited duration
- National Research Ethics Committee: Approval for drugs use in Clinical Trials (& National Drug Administration)





Mezghani Bassem -Tunisia

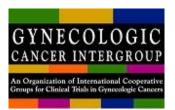
- Salah Azaiz Cancer Institute Tunis Tunisia
 - Annually: ≈80 newly diagnosed; ≈140 received Pacli-Carbo CT (All)
 - Pharmacy:

Drugs with Registration and Approval: "Efficient" System (!! Drugs availability in the National Central Pharmacy – Number of Providers; Imported/local Made)

 \blacktriangleright Drugs with no current Registration or with Registration but no Approval for the planned use \rightarrow

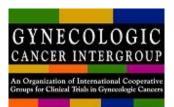
- 1) Practionners: Specific applications to the National Drug Administration for a case by case Approval: If accepted
- 2) Pharmacy: Drug is bought from the National Central Pharmacy
- 3) Drug administration
- 4) Social Welfare reimbursement (Indigent persons: Hospital)
- Drugs Clinical Trials





| Drug | Approval - disease | Approval -use | Procurement | Availability | Hospital Pharmacy |
|-------------|--|---|--|--------------|---|
| Paclitaxel | Ovarian Cancer | First line adjuvant Metastatic disease | LocalImported | | Out of stock Events: Rare → Short delay++ |
| Carboplatin | Ovarian Cancer Others | All | Imported | | → No protocols amendments |
| Gemcitabine | Others Ovarian Cancer | X | Imported | R | |
| Docetaxel | Others Ovarian Cancer | X | LocalImported | R | |





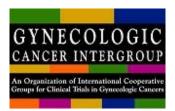
| Drug | Approval - disease | Approval -use | Procurement | Availability |
|------------------------------------|---|------------------|-------------|--------------|
| Cisplatin | Ovarian Cancer Others | All | Imported | |
| Doxorubicin | Ovarian Cancer Others | All | Imported | |
| Topotecan | X | X | X | X |
| Pegylated Liposomal Doxorubicin | X | X | X | X |
| Albumin-Bound Paclitaxel | X | X | X | X |
| Trabectedin | X | X | X | X |





| Drug | Approval - disease | Approval -use | Procurement | Availability |
|-------------|---|------------------|-------------|--------------|
| Bevacizumab | OthersOvarian Cancer | | Imported | R |
| Pazopanib | OthersOvarian Cancer | | Imported | B |
| Olaparib | X | X | X | X |
| Niraparib | X | X | X | X |
| Rucaparib | X | X | X | X |
| Erlotinib | X | X | X | X |
| Pemetrexed | OthersOvarian Cancer | | Imported | |



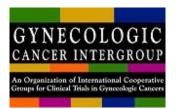


Mezghani Bassem - Tunisia

Rare Ovarian Tumors

| Regimen / Drug | Approval | Procurement | Availability |
|--|--|-------------|--------------|
| Bleomycin Etoposide Cisplatin | Choriocarcinoma Embryonal Carcinoma | Imported | |
| Vincristin <mark>Actinomycin</mark> Cyclophosphamide | Ovarian Cancer Others | Imported | |
| Ifosfamide | Ovarian Cancer Others | Imported | |
| Fluorouracil <mark>Oxaliplatin</mark> | OthersOvarian Cancer for FU | Imported | |



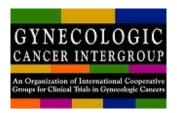


Mezghani Bassem - Tunisia

Survey

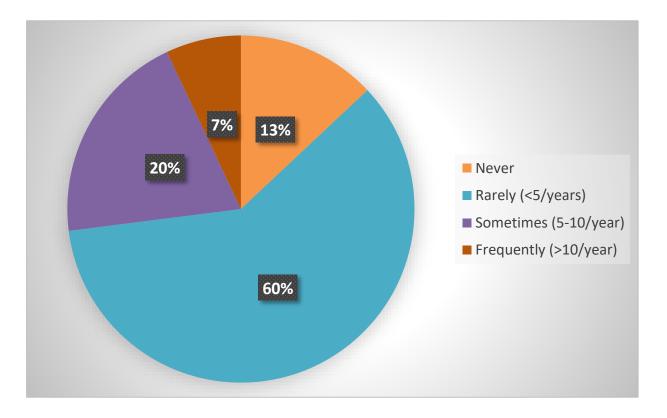
- January 2018
- Medical Oncologists: Hospital / Private Clinics
- 15 Questions
 - Drugs availability
 - Complying with Updated Guidelines and Standard of Care
 - Use of Unregistered Drugs
 - Use of regimens inspired by the design of Current Clinical Trials



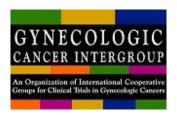


Mezghani Bassem - Tunisia

1) Availability of Paclitaxel and Carboplatin : Frequency of out of Stock events that led at least to to an administration delay or require a protocol amendment

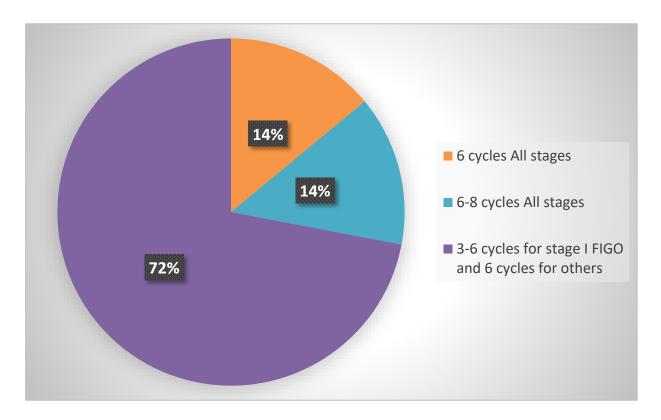




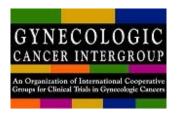


Mezghani Bassem - Tunisia

2) 3 weekly Paclitaxel and Carboplatin Regimen in an adjuvant use : Number of cycles?

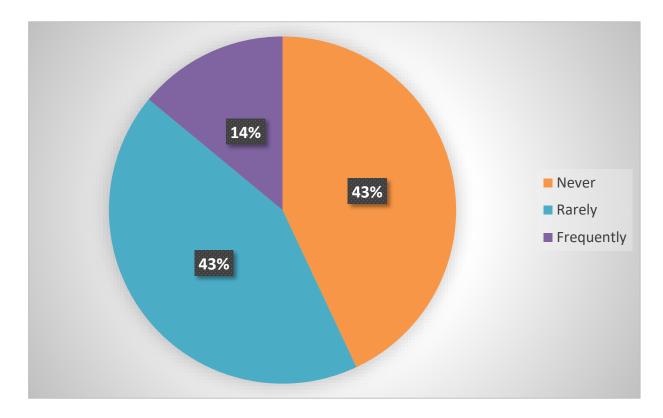




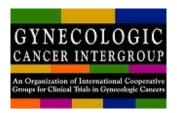


Mezghani Bassem - Tunisia

3) Dose-dense Paclitaxel + 3 weekly Carboplatin regimen in an adjuvant use (GOG262, ICON 8 Design)

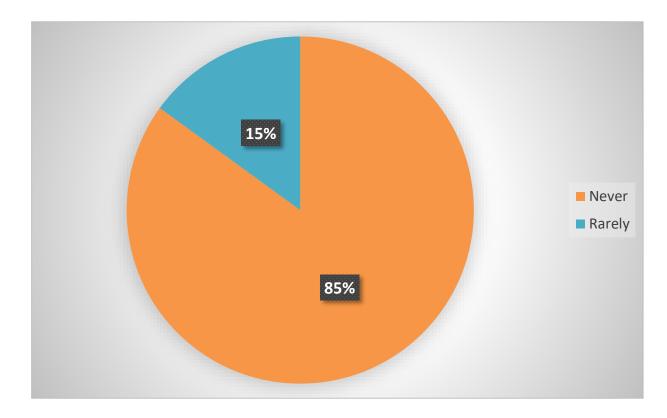




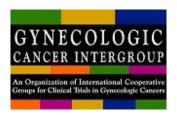


Mezghani Bassem - Tunisia

4) Dose-dense Paclitaxel + weekly Carboplatin AUC 2 regimen in an adjuvant use (MITO 7, ICON 8 Design)

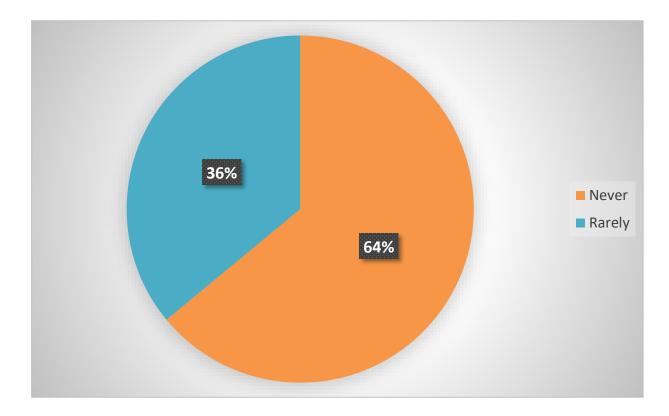




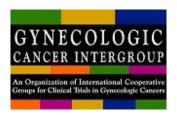


Mezghani Bassem - Tunisia

5) 3 weekly Carboplatin regimen in an adjuvant use in Stage I FIGO if chemotherapy is appropriate

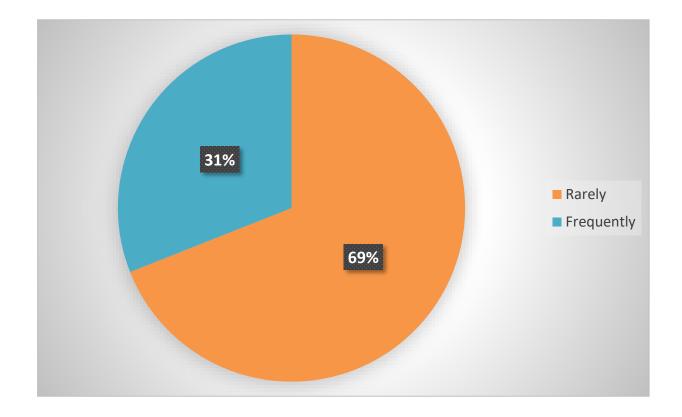




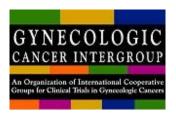


Mezghani Bassem - Tunisia

6) 3 weekly Carboplatin regimen in an adjuvant use in Eldery >70 Stage III/IV FIGO

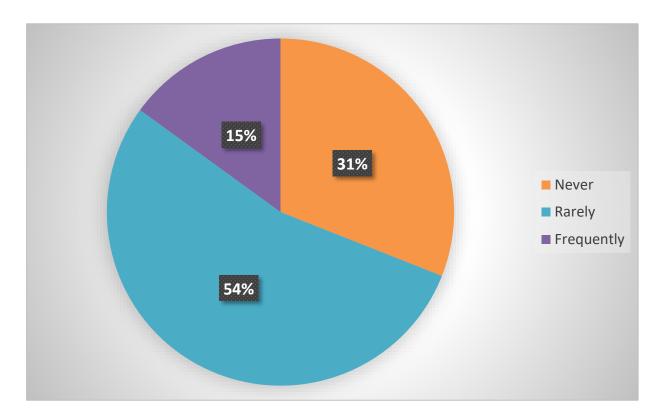




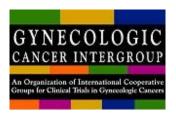


Mezghani Bassem - Tunisia

7) Weekly Paclitaxel 60mg/m2 + Carboplatin AUC 2 regimen in an adjuvant use in Eldery >70 Stage III/IV FIGO (EWOC 1 Design)

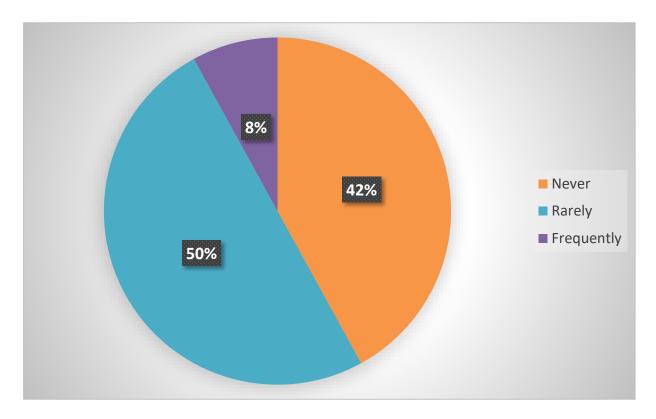




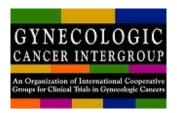


Mezghani Bassem - Tunisia

8) Bevacizumab + Paclitaxel-Carboplatin regimen in an adjuvant use in case of Residual disease or Stage IV FIGO (ICON 7 Design)

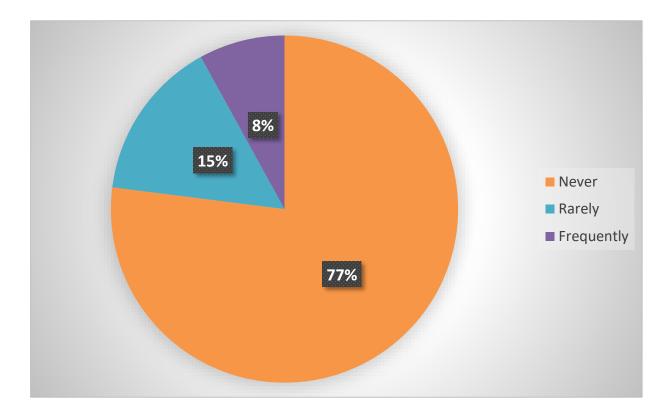




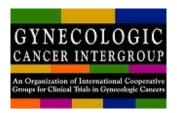


Mezghani Bassem - Tunisia

9) Maintenance Therapy with weekly Paclitaxel regimen following adjuvant chemotherapy

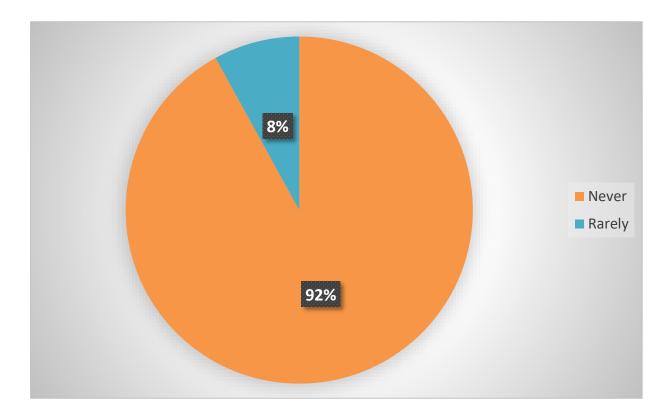




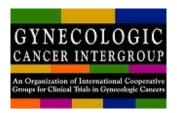


Mezghani Bassem - Tunisia

10) Maintenance Therapy with 4 weekly Paclitaxel regimen following adjuvant chemotherapy

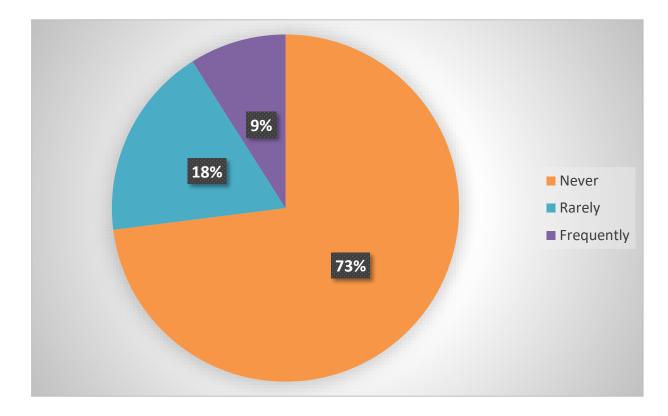




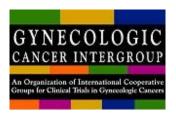


Mezghani Bassem - Tunisia

11) Maintenance Therapy with Bevacizumab following adjuvant chemotherapy + Bevacizumab

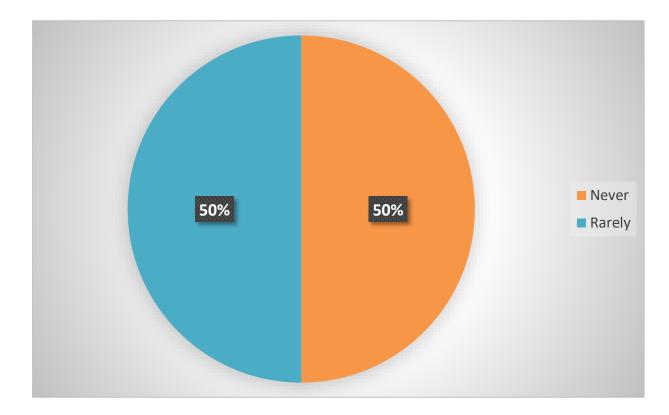




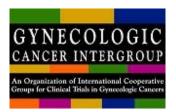


Mezghani Bassem - Tunisia

12) Bevacizumab Addition to Chemotherapy in patients with Platinum Resistant Ovarian Cancer (AURELIA Design)

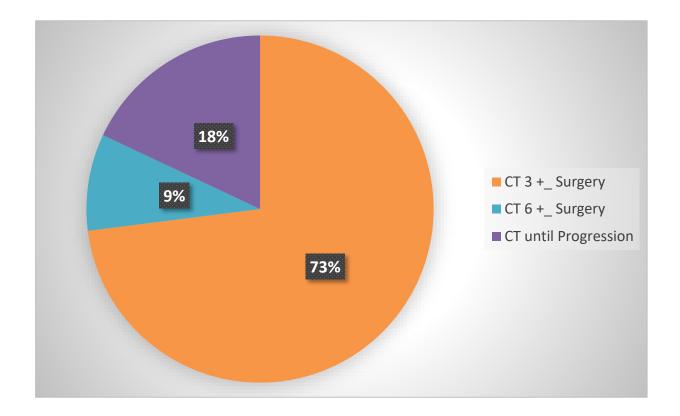




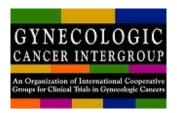


Mezghani Bassem - Tunisia

13) Platinum Sensitive Recurrences: Therapeutic protocols?

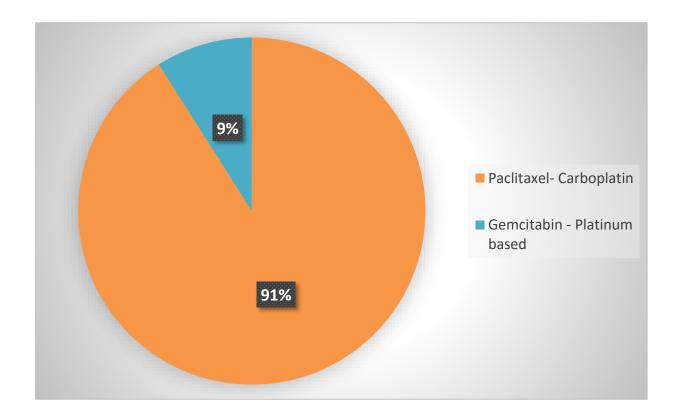




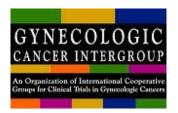


Mezghani Bassem - Tunisia

14) Platinum Sensitive Recurrences: Chemotherapy Regimens?

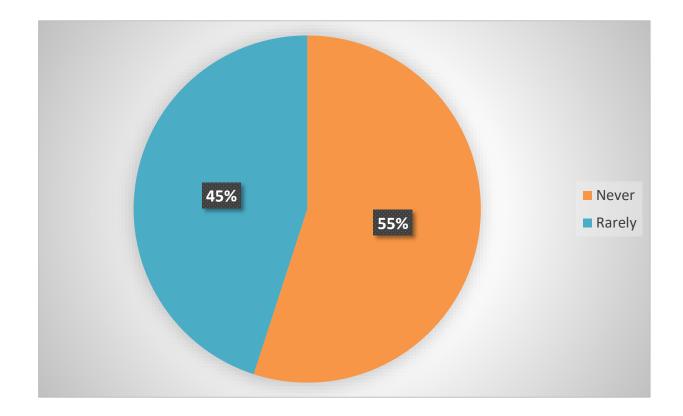




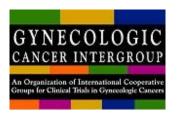


Mezghani Bassem - Tunisia

15) Platinum Sensitive Recurrences: Bevacizumab use + Chemotherapy?







Mezghani Bassem - Tunisia

- Conclusion
- Daily Practice
 - ✓ All patients ⊃ Indigents receive conventional CT adequately (Rare delays ← Rare Out of Stock events)
 - Limited access to innovative drugs
 Limited Financial resources (Tunisian Health System)
- National Drug Administration



Registration/Specific Approval

 Clinical Trials National Research Ethics Committee & National Drug Administration Approval for drugs use in Clinical Trials