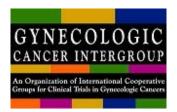


- Tunisian Health System: Social Welfare with a Public insurance for all citizens including Indigent persons. (± Additional private insurance)
- Choice: Public Hospital/Private Clinics (Indigents  $\rightarrow$  Public H)
- National Drug Administration
  - ✓ Registration for definitive Approval: one 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

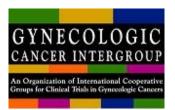
- Salah Azaiz Cancer Institute Tunis Tunisia
  - Annually: ≈80 newly diagnosed; ≈140 received Pacli-Carbo CT (All)
  - Pharmacy:

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	<ul> <li>First line adjuvant</li> <li>Metastatic disease</li> </ul>	<ul><li>Local</li><li>Imported</li></ul>		Out of stock Events: Rare → Short delay++
Carboplatin	<ul><li> Ovarian</li><li> Cancer</li><li> Others</li></ul>	All	Imported		→ No protocols amendments
Gemcitabine	Others Ovarian Cancer	X	Imported	R	
Docetaxel	Others Ovarian Cancer	X	<ul><li>Local</li><li>Imported</li></ul>	R	





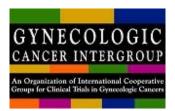
Drug	Approval - disease	Approval -use	Procurement	Availability
Cisplatin	<ul><li> Ovarian Cancer</li><li> Others</li></ul>	All	Imported	
Doxorubicin	<ul><li> Ovarian Cancer</li><li> Others</li></ul>	All	Imported	
Topotecan	X	X	X	X
Pegylated Liposomal Doxorubicin	X	X	X	X
Albumin-Bound Paclitaxel	X	X	X	X
Trabectedin	X	X	X	X





Drug	Approval - disease	Approval -use	Procurement	Availability
Bevacizumab	<ul><li>Others</li><li>Ovarian Cancer</li></ul>		Imported	R
Pazopanib	<ul><li>Others</li><li>Ovarian Cancer</li></ul>		Imported	B
Olaparib	X	X	X	X
Niraparib	X	X	X	X
Rucaparib	X	X	X	X
Erlotinib	X	X	X	X
Pemetrexed	<ul><li>Others</li><li>Ovarian Cancer</li></ul>		Imported	



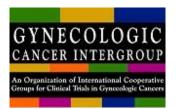


## Mezghani Bassem - Tunisia

#### **Rare Ovarian Tumors**

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



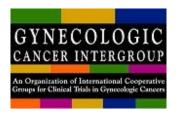


## Mezghani Bassem - Tunisia

## Survey

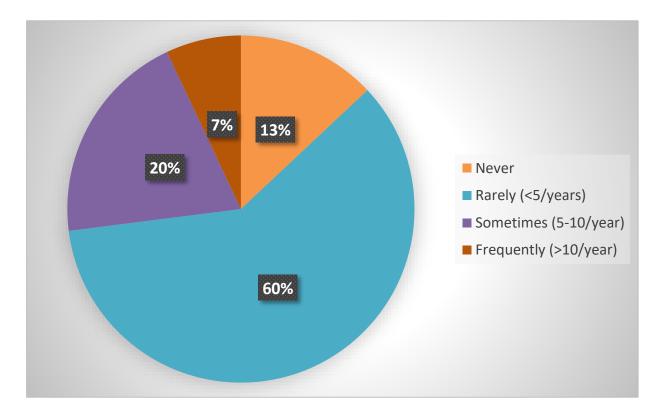
- January 2018
- Medical Oncologists: Hospital / Private Clinics
- 15 Questions
  - Drugs availability
  - Complying with Updated Guidelines and Standard of Care
  - Use of Unregistered Drugs
  - Use of regimens inspired by the design of Current Clinical Trials



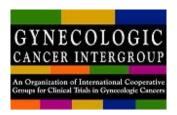


## Mezghani Bassem - Tunisia

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

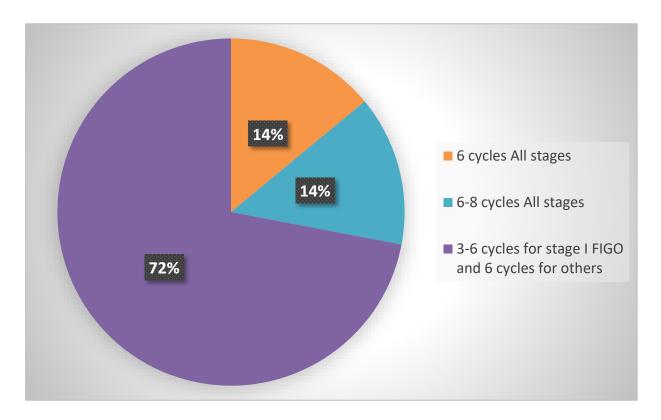




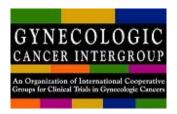


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2) 3 weekly Paclitaxel and Carboplatin Regimen in an adjuvant use : Number of cycles?

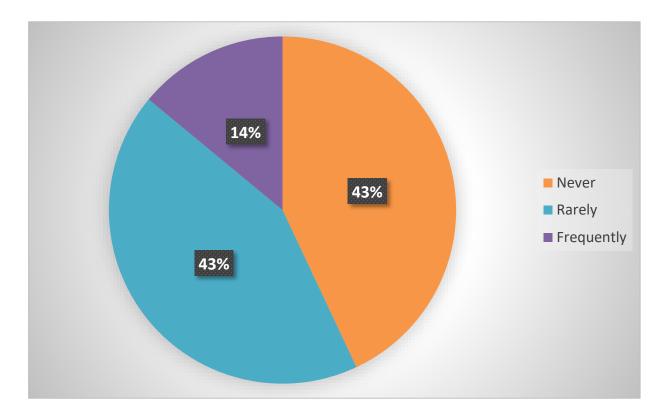




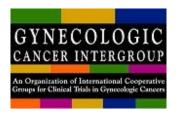


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3) Dose-dense Paclitaxel + 3 weekly Carboplatin regimen in an adjuvant use (GOG262, ICON 8 Design)

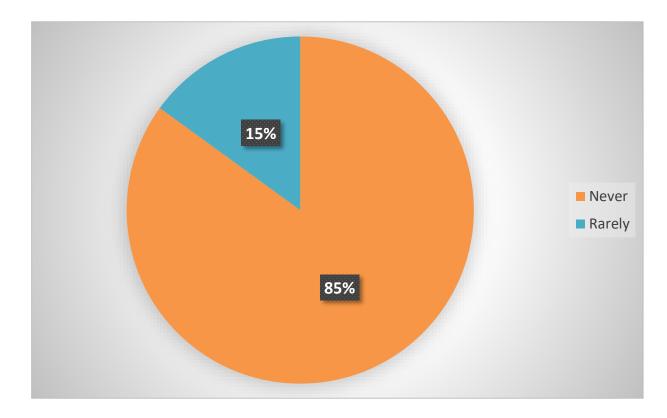




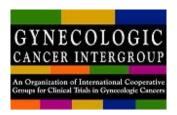


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4) Dose-dense Paclitaxel + weekly Carboplatin AUC 2 regimen in an adjuvant use (MITO 7, ICON 8 Design)

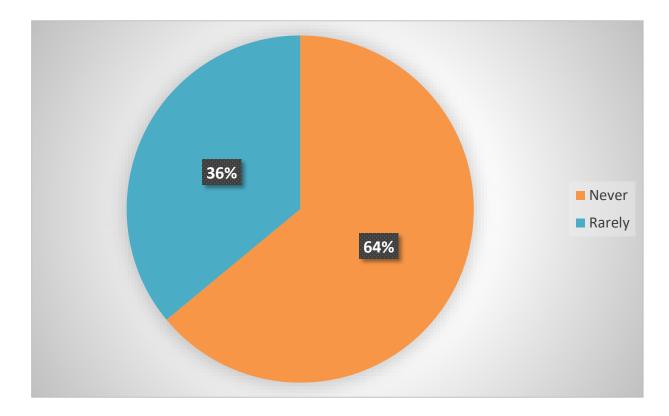




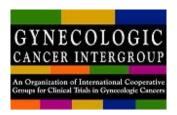


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5) 3 weekly Carboplatin regimen in an adjuvant use in Stage I FIGO if chemotherapy is appropriate

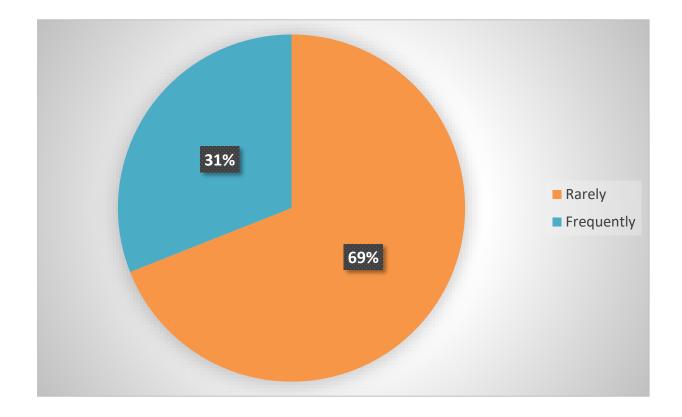




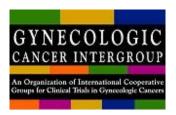


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6) 3 weekly Carboplatin regimen in an adjuvant use in Eldery >70 Stage III/IV FIGO

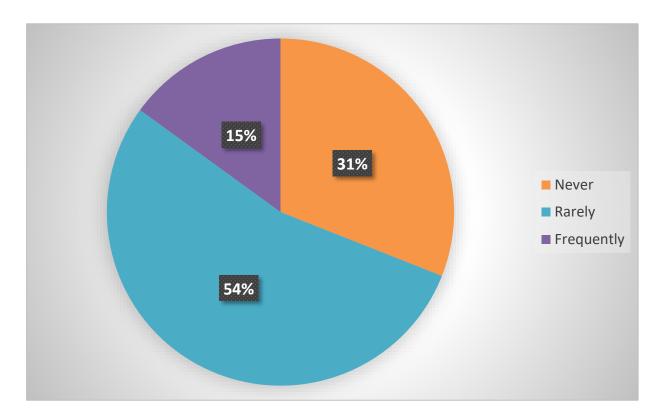




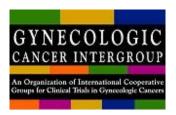


Mezghani Bassem - Tunisia

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

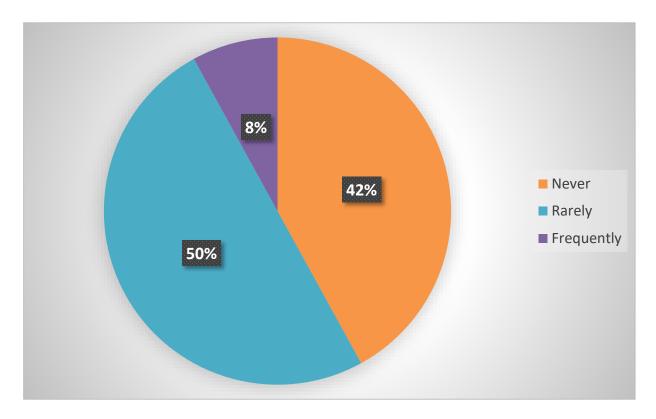




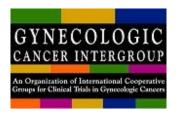


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8) Bevacizumab + Paclitaxel-Carboplatin regimen in an adjuvant use in case of Residual disease or Stage IV FIGO (ICON 7 Design)

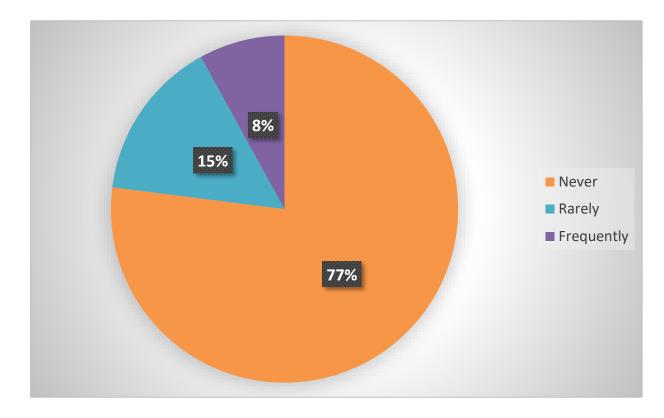




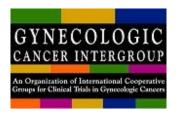


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9) Maintenance Therapy with weekly Paclitaxel regimen following adjuvant chemotherapy

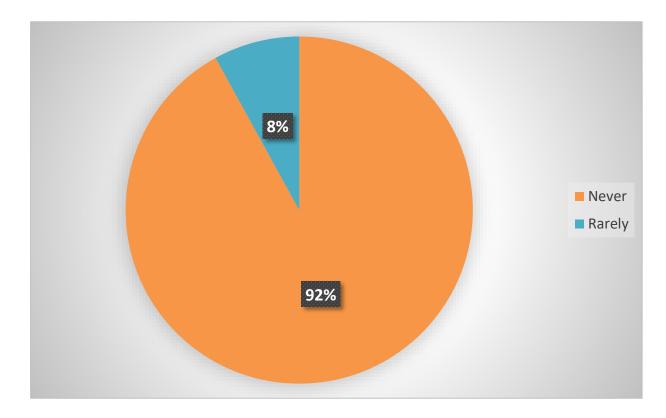




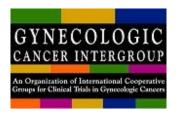


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10) Maintenance Therapy with 4 weekly Paclitaxel regimen following adjuvant chemotherapy

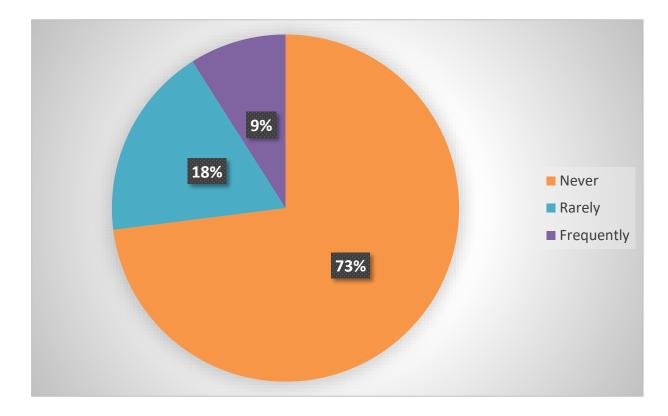




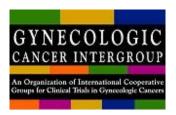


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11) Maintenance Therapy with Bevacizumab following adjuvant chemotherapy + Bevacizumab

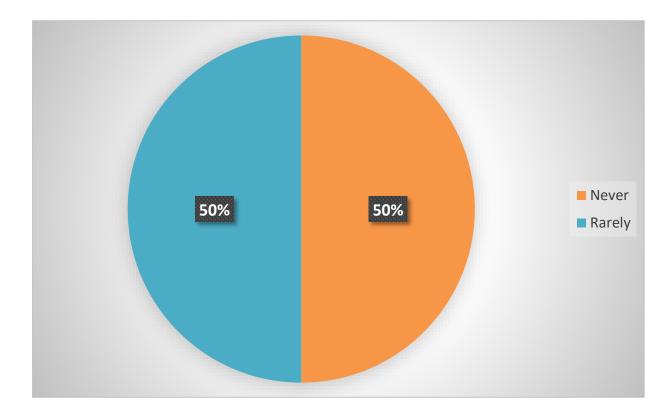




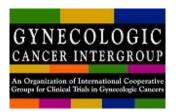


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12) Bevacizumab Addition to Chemotherapy in patients with Platinum Resistant Ovarian Cancer (AURELIA Design)

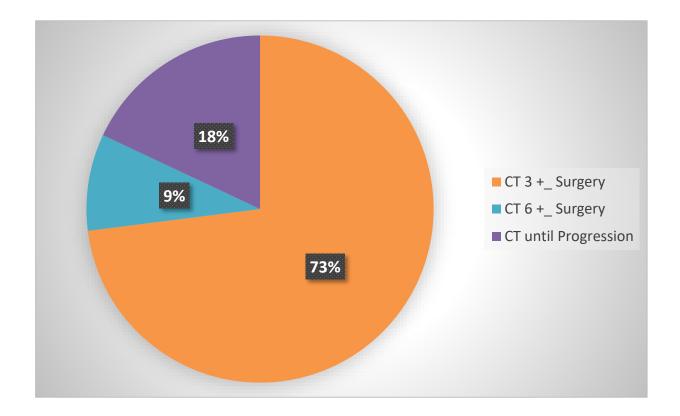




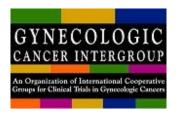


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13) Platinum Sensitive Recurrences: Therapeutic protocols?

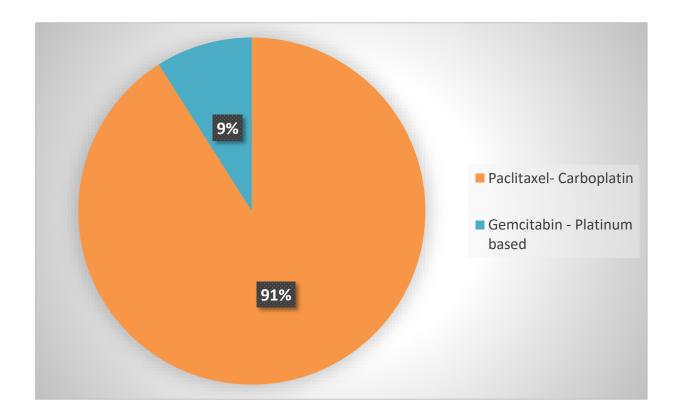




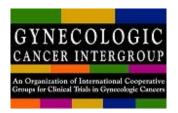


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14) Platinum Sensitive Recurrences: Chemotherapy Regimens?

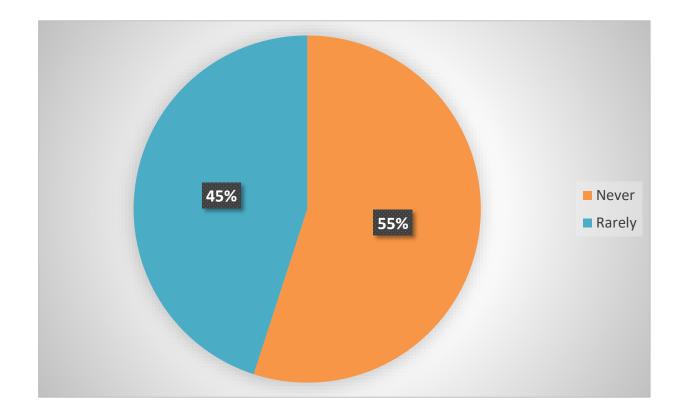




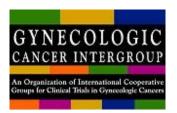


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15) Platinum Sensitive Recurrences: Bevacizumab use + Chemotherapy?







## 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