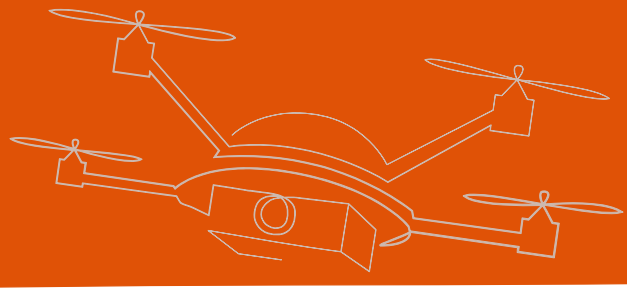
SECOND MEDICAL USE CLAIMS

- GELDIGHEIDSASPECTEN -

AIPPI

Mari Korsten
28-1-2019



NLO
EUROPEAN PATENT AND TRADEMARK ATTORNEYS

www.nlo.eu

1

Second medical use claims

- Introduction
- Legal basis
- Plausibility
- Prior art & Plausibility
- Questions

NLO
EUROPEAN PATENT AND TRADEMARK ATTORNEYS

www.nlo.eu

2

2nd medical use claims - introduction -

- Pharmaceuticals are biologically active products and interfere in biological processes.
- Most pharmaceuticals have a (first) intended use, but also have side effects.
- Sometimes, the side effect may be favorable and a possible new use of the known compound is envisaged.
- Developing a known compound for a new use is beneficial for pharmaceutical companies for reasons that they already have experience with the compound (e.g. toxicity data, stability data, allowed dossier etc.).
- Another incentive is to use "*medical use claims*" as a life cycle management tool.
- Hence, a need exists for protecting a new use of an already known medical product, i.e. a second medical use.
- If a known compound is used for the first time as a medical product, it is referred to as a first medical use.

2nd medical use claims

Aclasta - osteoporosis

Zometa - bone cancer

Revatio – pulmonary hypertension

Viagra – erectile dysfunction

2nd medical use claims - legal basis -

- Methods for treatment of the human or animal body are not patentable (Art. 53c EPC)

  "*Article 53; European patents shall not be granted in respect of…*

  (c) methods for the treatment of the human or animal body by surgery or therapy…;

- However, products for use in such (medical) methods are patentable

  "…this provision shall not apply to products, in particular substances or compositions for use in any of these methods."

- In Art. 54(5) it is mentioned that *any specific use* may be claimed and be used to delimit a claim from the prior art.

- According to G2/08 this can be another illness, but said use may also reside in somethings else:

  - specific dose regimen

  - special patient group

  - mode of administration etc..

2nd medical use claims - legal basis -

- The (medical) uses claimed should fulfill all substantive requirements of the EPC (novelty, inventive step, sufficiency)

- According to T609/02 (par 9) the claimed medical use is a functional technical feature of the claim:
  "Where a therapeutic application is claimed in the form allowed by the Enlarged Board of Appeal in its decision G5/83, ie in the form of the use of a substance or composition for the manufacture of a medicament for a defined therapeutic application [i.e. a second medical use], *attaining the claimed therapeutic effect is a functional technical feature of the claim."*

- This means that said medical use plays a (crucial) role in the assessment of novelty, inventive step and sufficiency.

- The claimed effect needs to be made 'plausible' in the application (T1329/04)
  "*it is at least made plausible by the disclosure in the application that its teaching solves indeed the problem it purports to solve. Therefore, even if supplementary post-published evidence may in the proper circumstances also be taken into consideration, it may not serve as the sole basis to establish that the application solves indeed the problem it purports to solve*."

Second medical use claims (plausibility)

- In G1/03 (par 2.5.2) the Enlarged Board stated that:

  "If an effect is expressed in a claim, there is a lack of sufficient disclosure. Otherwise, i.e. if the effect is not expressed in a claim but is part of the problem to be solved, there is a problem of inventive step (T939/92)."

- The effect of a lack of plausibility thus differs between compound claim and a second medical use claim:

  - in a compound claim the effect is not in the claim itself, but is in the description/examples

  - in a second medical use claim, the effect is in the claim.

- T609/02 (and T433/05) states that for sufficiency of 2nd medical use claims it is necessary that:

  "*under Article 83 EPC the application must disclose the suitability of the product to be manufactured for the claimed therapeutic application*"

- For compound claims the article 83 EPC threshold appears to be lower as one only has to show that the compounds can be made. However, the plausibility assessment returns under article 56 EPC.

Second medical use claims (plausibility threshold)

What is needed to make a 2nd medical use claim plausible?

- Pregabalin case (UK Supreme Court; 14-11-2018):

  The majority of the lords agreed that the speciation must *prima facie* disclose why the invention is plausible:

  "*It must always be necessary for the patentee to demonstrate that he has included in the specification something that makes the claim to therapeutic efficacy plausible. Otherwise a mere assertion of efficacy would be enough*"

  "*the claimed therapeutic effect may well be rendered plausible by a specification showing that something was worth trying for a reason, i.e. not just because there was an abstract possibility that it would work but because reasonable scientific grounds were disclosed for expecting that it might well work*."

  Two of the lords took a different approach:

  "*But they accept as sufficient a tailored claim which appears scientifically possible, even though it cannot be said to be even prima facie established, without for example testing or assays according to the state of the art. Only if a person skilled in the art would have significant doubts about the workability of the invention, would it fail for insufficiency of disclosure*."

Second medical use claims (plausibility threshold)

What is needed to make a 2nd medical use claim plausible?

- Leo Pharma / Sandoz (NL Court of Appeal; 7-11-2017)

  - CoA confirms the relevance of 'plausibility' for the assessment of inventive step (4.17)

  "*Wat betreft de uitleg van het plausibiliteitsvereiste staat voorop dat het een invulling vormt van het beginsel dat de omvang van het octrooimonopolie moet corresponderen met de bijdrage die het octrooi levert aan de stand van de techiek*"

  - the CoA also concludes that non-plausible effects must be disregarded when assessing inventive step

  "*Dat brengt mee dat effecten die de gemiddelde vakman op de aanvraagdatum niet in het octrooi zou hebben gelezen of die hij niet plausible zou hebben gevonden op basis van het octrooischrift, buiten beschouwing moeten worden gelaten bij de beoordeling van inventiviteit*."

  - The CoA does not require a *prima facie* case in the patent application as in the UK:

  "*Dat brengt enerzijds mee dat een effect en de onderbouwing daarvan niet uitdrukkelijk in het octrooischrift hoeven te worden vermeld als het effect en de plausibiliteit daarvan voor de gemiddelde vakman op de aanvraagdatum evident waren op basis van zijn algemene vakkennis*."

Second medical use claims (plausibility threshold)

What is needed to make a 2nd medical use claim plausible?

- EPO

  - T609/02: "*Under Article 83 EPC the application must disclose the suitability of the product to be manufactured for the claimed therapeutic application.*"

  - T158/96: "*No evidence is on record showing that, before the priority of the European application, a clear and accepted relationship between these physiological activities and the many psychiatric disorders and diseases…had finally been established.*"

  - T1496/08: "*Post-published evidence may be taken into account, but only to back-up the findings in the patent application in relation to the use of the ingredient as a pharmaceutical, and not to establish sufficiency if disclosure of its own.*"

  - T0578/06: "." *The board notes that the EPC requires no experimental proof for patentability and considers that the disclosure of experimental data or results in the application as filed and/or post-published evidence is not always required to establish that the claimed subject-matter solves the objective technical problem*"

  EPO: experimental data is not always required, but it appears that in the application at least a prima facie argumentation in the application should be made why the invention is plausible.

Second medical use claims (plausibility threshold)

What is needed to make a 2nd medical use claim plausible?

- EPO

  - T609/02: "*Under Article 83 EPC the application must disclose the suitability of the product to be manufactured for the claimed therapeutic application.*"

  - T158/96: "*No evidence is on record showing that, before the priority of the European application, a clear and accepted relationship between these physiological activities and the many psychiatric disorders and diseases…had finally been established.*"

  - T1496/08: "*Post-published evidence may be taken into account, but only to back-up the findings in the patent application in relation to the use of the ingredient as a pharmaceutical, and not to establish sufficiency if disclosure of its own.*"

  - T0578/06: "." *The board notes that the EPC requires no experimental proof for patentability and considers that the disclosure of experimental data or results in the application as filed and/or post-published evidence is not always required to establish that the claimed subject-matter solves the objective technical problem*"

  EPO: experimental data is not always required, but it appears that in the application at least a prima facie argumentation in the application should be made why the invention is plausible.

Second medical use claims (the other side of the coin)

Plausibility of prior art

- In view of the equivalence-principle prior art should fulfil similar requirements with respect to sufficiency to be relevant for novelty/inventive step

- This means that if the threshold for plausibility is lowered, the threshold for a plausible disclosure should also be lowered

- What does this mean for published clinical trial data and protocols, i.e. is the outcome of further research non-inventive?:

  T2506/12: *"In this context it is pointed out that drug compounds to be used in clinical trial with human subjects are not selected on a general "try-and-see" attitude, but based on existing favorable scientific data, for both ethical and economical reasons."*

- On the other hand, phase III studies regularly fail

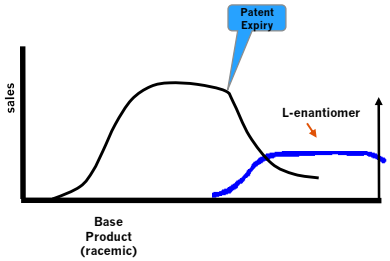
Second medical use claims (getting them granted)

- Even though experimental data is not mandatory, the examiners at the EPO take the position that it is…
- The clinical data in the application is considered very important, but if available prosecution is often smooth
- If no clinical data is available in-vitro and in-vivo data may be helpful, but Examiners become more critical
- To get (relevant) patent protection on the basis of an application without experimental data at all is very difficult, impossible in many other jurisdictions
- Arguing that the an application without data was plausible in view of the prior art, will usually result in a lack of inventive step
- Patent applications with relatively narrow indications (that may end up in the label) together with supporting (clinical) data are preferred

Second medical use claims (plausibility should not be too low)

- Cetirizine-case
  - cetirizine is a racemic mixture of 50% of the L-enantiomer and 50% of the D-enantiomer
  - The L-enantiomer is the most active one, the D-enantiomer causes fatigue
  - It is commonly known that one enantiomer has a benefit over the other

- Sepracor, filed two patent applications on the same day, one for the L-enantiomer and one for the D-enantiomer
- On the basis of post-published data it was shown that the L-enantiomer was the active one
- Before basic patent expiry doctors were encouraged to prescribe the (patented) L-enantiomer only



Second medical use claims (plausibility should not be too low)

- Narrowing down the indication is frequently used as a life cycle management tool
  - Compound 1
  - Compound 1 for use as a medicament
  - Compound 1 for use in the treatment of cancer
  - Compound 1 for use in the treatment of breast cancer
  - Compound 1 for use in the treatment of patients suffering from HER2- breast cancer
  - Compound 1 for use in the treatment of patients suffering from HER2- breast cancer that received prior treatment with Y
- SMPC comprises often the most narrow indications
- If the plausibility threshold is too low "*arm chair inventor*" will benefit without making a real contribution to the art

Second medical use claims - conclusions-

- Second medical use claims remain fantastic lifecycle management tools for life-science companies, however enforcement is (was) a concern
- Experimental data in the application is not mandatory
- The UK and EPO appear to require at least a *prima facie* argumentation in the application to support the plausibility of a 2nd medical use claim
- In NL the threshold appears to be somewhat lower, what does this mean for the relevance of prior art?
- Lowering the plausibility threshold too much causes problems
- Although it is confirmed that experimental data is not required, it is in practice difficult to get medical use patents granted at the EPO (and many other jurisdictions) without data in the application ("*first-to-file*" vs. "*first-to-file-data*")

Second medical use claims

Questions?