

UNITE DE METHODOLOGIE ET QUALITE DE VIE EN CANCEROLOGIE INSERM UMR1098, CHU BESANÇON

▪ RESPONSABLE DE L'ÉQUIPE

VIRGINIE WESTEEL, PU-PH, ONCO-PNEUMOLOGUE

▪ CHERCHEURS DE L'ÉQUIPE IMPLIQUES DANS LA RECHERCHE EN QdV

AMELIE ANOTA, PHD, STATISTICIENNE

EMILIE CHARTON, PHD-STUDENT, STATISTICIENNE

GUILLAUME MOUILLET, MD, PHD-STUDENT, ONCOLOGISTE

AHMAD OUSMEN, PHD-STUDENT

SOPHIE PAGET-BAILLY, PHD, EPIDEMIOLOGISTE

▪ CONTACT

3 Bld Fleming - 25 000 Besançon

Tel : 03 70 63 21 72

Mail : aanota@chu-besancon.fr

Ste web de l'équipe : www.umqvc.org

▪ RESUME SUR L'ÉQUIPE

L'UMQVC fait partie du pôle cancérologie du CHU de Besançon, et est rattachée à l'équipe Inserm UMR 1098.

Les missions de l'UMQVC sont d'apporter une expertise méthodologique pour le design (protocole, CRF), le data management, l'analyse et l'interprétation des essais cliniques et des études épidémiologiques en cancérologie. L'UMQVC est composée de trois modules : Epidémiologie et biostatistiques en cancérologie / Recherche méthodologique et analyse en qualité de vie / Qualité de vie en routine.

Dans le domaine de la qualité de vie, une thématique importante de recherche de l'UMQVC porte sur la méthodologie d'analyse longitudinale des données de qualité de vie dans les essais cliniques en cancérologie. Ainsi, des projets d'envergure nationale (MCID-RS, MD-QoL) et internationales (Q-Recist) ont été initiés. Ces projets portent sur les challenges méthodologiques de l'analyse longitudinale tels que :

- l'occurrence des données manquantes potentiellement informatives,
- la définition de la différence minimale cliniquement importante pour l'interprétation des résultats d'analyse,
- ainsi que sur l'occurrence de l'effet Response Shift caractérisant le processus d'adaptation des patients vis-à-vis de la maladie et du traitement.

L'unité mène également plusieurs projets de recherche sur la faisabilité de l'évaluation de la qualité de vie en routine au CHU de Besançon et apporte son expertise.

Partenariats : ARCAGY-GINECO, AFSOS-Unicancer, GERCOR, Pôle de Gériatrie et d'Innovation, EORTC QoL Group, GIMEMA (Italie).

▪ **DISCIPLINES DE RECHERCHE DE L'ÉQUIPE:**

- Epidémiologie / Santé publique / Biostatistiques
- Recherche clinique
- Psychologie de la santé / Psychologie du travail
- Sociologie
- Economie de la santé

▪ **CONTRIBUTION DE L'ÉQUIPE AUX AXES DE RECHERCHE DE LA PLATEFORME:**

- Axe 1 - Développement conceptuel et approches intégrative de la QdV
- Axe 2 - Validation, sélection et utilisation de questionnaires de QdV
- Axe 3 - Analyses longitudinales de la QdV
- Axe 4 - Valeur pronostique de la QdV et relation avec les critères cliniques
- Axe 5 - Approche médico-économique de la QdV

▪ **Liste des principaux projets en QdV de l'équipe de ces 5 dernières années**

ICE : Cohorte prospective multicentrique d'aidants informels en Bourgogne - Franche-Comté (Dr Virginie NERICH)

MD-QoL : Impact et prise en compte de l'occurrence de données manquantes dans l'analyse longitudinale de la qualité de vie relative à la santé en cancérologie (Dr Amélie ANOTA)

MCID-RS: Détermination de la différence minimale cliniquement importante d'un score de qualité de vie relative à la santé intégrant l'occurrence de l'effet "Response Shift" (Dr Amélie ANOTA)

QRECIST : Développement d'un critère de réponse type RECIST pour l'analyse longitudinale des données de QdV en cancérologie (Dr Amélie ANOTA)

SAT-FINAL: Cross-cultural adaptation of the EORTC cancer in-patient satisfaction with care (EORTC IN-PATSAT32) questionnaire into a core cancer patient satisfaction with care module and development of a complementary specific cancer outpatient satisfaction module (Dr Anne BREDART)

CyPRES : Consensus Patients pour des REcherches en soins Support (Dr Amélie ANOTA)

▪ **Liste des publications de l'équipe de ces 5 dernières années en rapport avec l'activité de la plateforme QdV & Cancer**

1. Bascoul-Mollevis M, Savina, A. Anota, A. Barbieri, D. Azria, F. Bonnetain, S. Gourgou-Bourgade. Longitudinal Health-related quality of life analysis in oncology with time to event approaches, the STATA program qlqc30_TTD. Accepted le 16/02/2018. Computer Methods and Programs in Biomedicine.

2. Bredart A, Anota A, Dick J, Kuboth V, Lareyre O, De Pauw A, Cano A, Stoppa-Lyonnet D, Schmutzler R, Dolbeault S, Kop JL. Patient-Centered Care in Breast Cancer Genetic Clinics. Int J Environ Res Public Health. 2018 Feb 12;15(2). pii: E319.

3. Manneville F, Rotonda C, Conroy T, **Bonnetain F**, Guillemin F, Omorou AY. The impact of physical activity on fatigue and quality of life during and after adjuvant treatment for breast cancer. *Cancer*. 2018 Feb 15;124(4):797-806.
4. Pourcelot C, Orillard E, Nallet G, Dirand C, Billion-Rey F, Barbier G, Chouk S, Limat S, Montcuquet P, **Henriques J, Paget-Bailly S, Anota A**, Chaigneau L, Nerich V. Adjuvant hormonal therapy for early breast cancer: an epidemiologic study of medication adherence. *Breast Cancer Research and Treatment*. *Breast Cancer Res Treat*. 2018 Jan 23.
5. Mariette C, Renaud F, Piessen G, Gele P, Copin MC, Leteurtre E, Delaeter C, Dib M, Clisant S, Harter V, **Bonnetain F**, Duhamel A, Christophe V, Adenis A; FREGAT Working Group. The FREGAT biobank: a clinico-biological database dedicated to esophageal and gastric cancers. *BMC Cancer*. 2018 Feb 6;18(1):139.
6. Gillet, N., Fouquereau, E., Coillot, H., **Bonnetain, F.**, Dupont, S., Moret, L., **Anota, A.**, Colombat, P. (2018). Ethical leadership, professional caregivers' well-being, and patients' perceptions of quality of care in oncology. *European Journal of Oncology Nursing*, 33, 1-7.
7. F. Efficace, P. Niscola, F. Cottone, G. Gaidano, **F. Bonnetain, A. Anota**, P. Niscola, L. Fianchi, M. Breccia, G. Caocci, R. Stauder, U. Platzbecker, G.A. Palumbo, M. Luppi, R. Invernizzi, M. Gobbi, L. Borin, A. Angela Di Tucci, H. Zhang, M. Vignetti, F. Mandelli. Inclusion of Patient's Self-Reported Fatigue into a Standard Laboratory Risk Classification Enhances Survival Prediction in Patients with Advanced Myelodysplastic Syndromes. *Cancer*. 2017 Dec 12.
8. Brédart A, **Anota A**, Young T, Tomaszewski KA, Arraras JI, Moura De Albuquerque Melo H, Schmidt H, Friend E, Bergenmar M, Costantini A, Vassiliou V, Hureaux J, Marchal F, Tomaszewska IM, Chie WC, Ramage J, Beaudeau A, Conroy T, Bleiker E, Kulis D, **Bonnetain F**, Aaronson NK; EORTC Quality of Life Group. Phase III study of the European Organisation for Research and Treatment of Cancer satisfaction with cancer care core questionnaire (EORTC PATSAT-C33) and specific complementary outpatient module (EORTC OUT-PATSAT7). *Eur J Cancer Care (Engl)*. 2017 Nov 2.
9. **Bonnetain F**, Borg C, Adams RR, Ajani JA, Benson A, Bleiberg H, Chibaudel B, Diaz-Rubio E, Douillard JY, Fuchs CS, Giantonio BJ, Goldberg R, Heinemann V, Koopman M, Labianca R, Larsen AK, Maughan T, Mitchell E, Peeters M, Punt CJA, Schmoll HJ, Tournigand C, de Gramont A. How health-related quality of life assessment should be used in advanced colorectal cancer clinical trials. *Ann Oncol*. 2017 Sep 1;28(9):2077-2085.
10. Servagi-Vernat S, Créhange G, **Bonnetain F**, Mertens C, Brain E, Bosset JF. Chemoradiation in elderly esophageal cancer patients: rationale and design of a phase I/II multicenter study (OSAGE). *BMC Cancer*. 2017 Jul 13;17(1):483.
11. Jacquinet Q, Meneveau N, Chatot M, **Bonnetain F**, Degano B, Bouhaddi M, Dumoulin G, Vernerey D, Pivot X, Mougin F. A phase 2 randomized trial to evaluate the impact of a supervised exercise program on cardiotoxicity at 3 months in patients with HER2 overexpressing breast cancer undergoing adjuvant treatment by trastuzumab: design of the CARDAPAC study. *BMC Cancer*. 2017 Jun 19;17(1):425.
12. Van Cutsem E, De Gramont A, Henning G, Rougier P, **Bonnetain F**, Seufferlein T. Improving Outcomes in Patients with CRC: The Role of Patient Reported Outcomes-An ESDO Report. *Cancers (Basel)*. 2017 May 26;9(6). pii: E59.
13. **A. Anota**, M. Savina, C. Bascoul-Mollevi, **F. Bonnetain** (2017). QoLR: An R Package for the

Longitudinal Analysis of Health-Related Quality of Life in Oncology. *Journal of Statistical Software*, 77(12), 1-30.

14. A. Bourmaud, **A. Anota**, C. Moncharmont, F. Tinquaut, M. Oriol, V. Trillet-Lenoir A. Bajard, S Parnalland, C. Rotonda, **F. Bonnetain**, D. Pérol, F Chauvin. Cancer-related fatigue management: evaluation of a patient education program with a large-scale randomised controlled trial, the PEPs fatigue study. *Br J Cancer*. 2017 Feb 14.
15. S. Parnalland, **A. Anota**, C. Rotonda, A. Lecas, M. Lanta, C. Cerisey, S. Dolbeault, D. Mayeur, C. Orsini, **F. Bonnetain**. A Patient Consensus for Research in Supportive Care in French Cancer Care Centers: The CyPRES Project. 2017. *Oncologie*
16. **Es-Saad I, Paget-Bailly S, Fritzsich J, Mouillet G, Bonnetain F**. [Assessment of the quality of life with regard to health following a cancer diagnosis]. *Rev Infirm*. 2017 Jan;66(227):36-37.
17. **A. Anota**, A.S. Mariet, P. Maingon, F. Joly, J.F. Bosset, A.V. Guizard, H. Bittard, M. Velten, M. Mercier. Cross-cultural adaptation and validation of the Expanded Prostate cancer Index Composite questionnaire for health-related quality of life of prostate cancer patients. *Health Qual Life Outcomes*. 2016 Dec 6;14(1):168.
18. **A. Ousmen**, T. Conroy, F. Guillemin, M. Velten, D. Jolly, M. Mercier, S. Causeret, J. Cuisenier, O. Graesslin, Z. Hamidou, **F. Bonnetain, A. Anota**. Impact of the occurrence of the response shift effect on the determination of the minimal clinically important difference in a health-related quality of life score over time *Health Qual Life Outcomes*. 2016 Dec 3;14(1):167.
19. Soubeyran P, Terret C, Bellera C, **Bonnetain F**, Jean OS, Galvin A, Chakiba C, Zwolakowski MD, Mathoulin-Pélissier S, Rainfray M. Role of geriatric intervention in the treatment of older patients with cancer: rationale and design of a phase III multicenter trial. *BMC Cancer*. 2016 Dec 1;16(1):932.
20. **Pozet A**, Lejeune C, Bonnet M, Dabakuyo S, Dion M, Fagnoni P, Gaimard M, Imbert G, Nerich V, Foubert A, **Chotard M**, Bonin M, **Anota A, Bonnetain F**. Evaluation of efficacy and efficiency of a pragmatic intervention by a social worker to support informal caregivers of elderly patients (The ICE Study): study protocol for a randomized controlled trial. *Trials*. 2016 Nov 3;17(1):531.
21. Bottomley A, Pe M, Sloan J, Basch E, **Bonnetain F**, Calvert M, Campbell A, Cleeland C, Cocks K, Collette L, Dueck AC, Devlin N, Flechtner HH, Gotay C, Greimel E, Griebisch I, Groenvold M, Hamel JF, King M, Kluetz PG, Koller M, Malone DC, Martinelli F, Mitchell SA, Moinpour CM, Musoro J, O'Connor D, Oliver K, Piau-Louis E, Piccart M, Pimentel FL, Quinten C, Reijneveld JC, Schürmann C, Smith AW, Soltys KM, Taphoorn MJ, Velikova G, Coens C; Setting International Standards in Analyzing Patient-Reported Outcomes and Quality of Life Endpoints Data (SISAQOL) consortium. Analysing data from patient-reported outcome and quality of life endpoints for cancer clinical trials: a start in setting international standards. *Lancet Oncol*. 2016 Nov;17(11):e510-e514.
22. **Bonnetain F**, Efficace F, Fiteni F, **Anota A**. Reply to B. Kurland et al. *J Clin Oncol*. 2016 Sep 6. pii: JCO696690. [Epub ahead of print]
23. **Anota A.**, Cottone F., Barbieri A., Bascoul-Mollevi C., Efficace F. and **Bonnetain F**. Longitudinal analysis of the health-related quality of life in oncology integrating the occurrence of the response shift effect. *Italian Journal of Applied Statistics: Statistica Applicata - Vol. 27, num.1; 2016*
24. **Anota A**, Boulon M, Dabakuyo-Yonli S, Hillon P, Cercueil JP, Minello A, Jouve JL, Paoletti X, Bedenne L, Guiu B, **Bonnetain F**. An explorative study to assess the association between health-

related quality of life and the recommended phase II dose in a phase I trial: idarubicin-loaded beads for chemoembolisation of hepatocellular carcinoma. *BMJ Open*. 2016 Jun 24;6(6):e010696.

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28. **Bonnetain F**, Fiteni F., Efficace F., **Anota A**. Statistical Challenges in the Analysis of Health-Related Quality of Life in Cancer Clinical Trials. *J Clin Oncol*. 2016 Jun 1;34(16):1953-6.

29. Brédart A, **Anota A**, Young T, Tomaszewski KA, Arraras JI, Moura De Albuquerque Melo H, Schmidt H, Friend E, Bergenmar M, Costantini A, Vassiliou V, Hureauux J, Marchal F, Tomaszewska IM, Chie WC, Ramage J, Beaudreau A, Conroy T, Bleiker E, Kulis D, **Bonnetain F**, Aaronson NK; EORTC Quality of Life Group. The European Organization for Research and Treatment of Cancer - Satisfaction with Cancer Care Questionnaire: revision and extended application development. *Psycho-Oncology*. 13 APR 2016

30. Fiteni F., **Anota A.**, **Westeel V.**, **Bonnetain F**. Methodology of health-related quality of life analysis in phase III advanced non-small-cell lung cancer clinical trials: a systematic review. *BMC Cancer*. 2016 Feb 18;16(1):122.

31. Barbieri A., **Anota A.**, Conroy T., Gourgou-Bourgade S., Juzyna B., **Bonnetain F.**, Lavergne C., Bascoul-Mollevi C. Applying longitudinal model from Item Response Theory to assess the Health-Related Quality of Life in PRODIGE 4 / ACCORD 11 randomized trial. *Med Decis Making*. 2016 Jul;36(5):615-28.

32. Rotonda C, **Anota A**, Mercier M, Bastien B, Lacoste G, Limacher J.M., Quoix E, **Bonnetain F**. Impact of TG4010 vaccine on Health-Related Quality of life in advanced non-small-cell lung cancer: results of a phase IIB clinical trial. *PLoS One*. 2015 Jul 24;10(7):e0132568.

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37. **Anota A**, Bascoul-Mollevi C, Conroy T, Guillemin F, Velten M, Jolly D, Mercier M, Causeret S, Cuisenier J, Graesslin O, Hamidou Z, **Bonnetain F**. Item Response Theory and Factor Analysis as a means to characterize occurrence of Response Shift in a longitudinal quality of life study in breast cancer patients. Health Qual Life Outcomes. 2014 Mar 8;12:32.
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41. **Anota A**, Hamidou Z, **Paget-Bailly S**, Chibaudel B, Bascoul-Mollevi C, Auquier P, **Westeel V**, Fiteni F, Borg C, **Bonnetain F**. Time to Health-related Quality of Life score deterioration as a modality of longitudinal analysis for health-related quality of life studies in oncology: do we need RECIST for quality of life to achieve standardization? Qual Life Res. 2015 Jan;24(1):5-18.
42. Kepka S, Baumann C, **Anota A**, Buron G, Spitz E, Auquier P, Guillemin F, Mercier M. The relationship between traits optimism and anxiety and health-related quality of life in patients hospitalized for chronic diseases: data from the SATISQOL study. Health Qual Life Outcomes. 2013 Aug 5;11:134.